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PHYSIOLOGY.

LECTURES
ON THE
PHYSICAL CONDITIONS
OF THE
TISSUES OF THE HUMAN BODY
AS APPLIED TO THE EXPLANATION OF
VITAL PHENOMENA.

Delivered at the College of France in 1834.

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LECTURE XXI.

Bruits of the Mouth and Nasal Fossæ in Health and Disease.—Bruits indicative of Diseases of the Chest—Œgophony—The Râle Crepitant — Broncophony — Bruits which seem to issue from the Chest, but are caused by the Voice, in consequence of Pulmonary Disease—Pectoriloquy.—Causes of Respiratory Bruits.—Production of Pulmonary Râles by Artificial means, after Narcotism effected with Prussic Ether.—The Murmur of Respiration, or Bruit of the Pulmonary Expansion.—Puerile and Senile Respiration.—Causes of their great difference.—Causes which render the Respiratory Bruits very various in intensity.—Importance of the Study of the Râles, and its application to Medicine.

Yesterday, in considering the resemblance which exists between the human voice and certain instruments of music, we carried our examination from the reservoir of air, which is represented by the lungs, to the porte-vent, or trachea, and then entered into a brief history of the analogy existing between the larynx and the vibrating part of instruments *à anche*; but as every reed-instrument is composed of four distinct parts, it remains for us to see in what part of the vocal apparatus we can find a mechanism that may represent the porte-vent, which is generally a tube conveying to the exterior the sounds formed in the body of the instrument. It is evident, even on the most superficial examination, that the porte-vent is represented by the pharynx, mouth, and nasal cavities, for these are the parts through which all sounds formed in the larynx are transmitted to the external air, and thence to the organ of hearing; it is also easy to comprehend that various modifications of the parts just named must operate a corresponding change in the sounds passing through them; however, very little importance has been attached to the bruits of the mouth or nares, indeed I might even say that they have been totally neglected by physiologists. Thus Laennec laid it down as a principle that "all the bruits taking place in the cavity of the mouth and nasal fossæ have no influence whatever on the respiratory murmur," and the greater part of his followers would seem to have adopted the same opinion, if we are to form a judgment from the neglect with which they have treated this part of the subject.*

* Since the delivery of this lecture, M. Beau of the *Hopital Necker* has read at the *Royal Academy* a very interesting paper "on the causes of the respiratory bruits revealed by auscultation," &c., in which he examines with attention different abnormal conditions of the respiratory system, and endeavours to prove "that every respiratory bruit is the result of the echo *(retentissement)* of the guttural bruit in the column of air which fills the bronchi. The following are the conclusions at which he arrives. See the *Archives Gén. de Méd.* for August 1834:—

1st, The different respiratory bruits not complicated with râles, are not produced

It is certain, however, that several modifications of structure in the pharynx and nasal fossæ give rise to the development of many bruits which are not heard in a state of health; thus we have a sound characteristic of angina gutturis, and, in general, all inflammations of the pharynx exercise an influence on the tone of the voice. You have all, without doubt, witnessed cases of polypi situated in the back of the mouth and nasal fossæ, and you must have remarked how considerably the voice is modified by any mechanical obstacle of that kind: finally, cancer of the tongue, amygdalitis, and various malformations of that part of the vocal apparatus which we have compared with the porte-voix, are known to influence the respiratory sound, and give indications which, when they shall have been studied with more care and attention, will enlarge the sphere of our knowledge, and produce results of a highly beneficial nature.

But we cannot afford to discuss minor details; let us rather hasten to a consideration of the bruits developed in the bronchi, pulmonary vesicles, trachea, and larynx. The modifications which they present form most important studies, not only for the physiologist, but also the pathologist and medical practitioner, because they are a faithful index of the various physical conditions of the respiratory system from which they result, and, as such, form the basis of a rational and correct diagnosis.

It is scarcely necessary for me to prove the truth of the proposition which I have just now laid down, though it is evidently the ground-work upon which all our practice in diseases of the chest should be built. If, as you have already been shown, the sounds observed in the human body are simply the result of the operation of certain physical conditions, we cannot clearly have different bruits produced by one and the same state of any organ; we might as well expect three or four different notes from the same chord of a musical instrument. Whenever, then, we succeed by observation in attaching any one sound to a peculiar condition of the organ, the reproduction of that bruit gives a sure proof of the existence of the corresponding change in the organization of the part; and whenever, in examining a patient, we find nothing but the pure respiratory murmur, such as exists in people enjoying full health, we are entitled to conclude that the organization of the pulmonary vesicles is unchanged and good, because any essential modification of structure, any obstacle to the free passage of the air, would necessarily give rise to some abnormal phenomenon with respect to sound.

As the presence of the healthy sound indicates a healthy state of the lung, so we have a great variety of bruits which point out each a peculiar modification of the respiratory apparatus, and thus direct us in the diagnosis and treatment of diseases which, before the application of what we may call the physical method, remained in a state of great obscurity. You have only to read Laennec, or any other work on auscultation, to find abundant examples of the importance attached to physical symptoms in diseases of the chest. Thus, sudden effusion in cases of pleuritis is indicated by the sudden disappearance of the respiratory bruit over a large surface of the chest, and when the effusion is not so extensive, or the patient is examined at an early stage of the disease, you have ægophony joined to the absence of the respiratory sound.

Inflammation of the pulmonary tissue is also indicated, in many cases where the other symptoms are so obscure and masked as to escape attention, by the râle crepitant, which always exists before the total disappearance of the respiratory sound. When the inflammation has reached a certain point, and the structure of the lung becomes altered by the solidifaction of the pulmonary vesicles and smaller branches of the bronchial tubes, producing that condition of the lung which pathologits call hepatization, the precise nature of the organic change is indicated by a remarkable change in the stethoscopic symptoms; the râle crepitant that was so distinct in an early stage of the inflammation gradually declines, until the absence of all bruit shows that the air no longer enters the smallest ramifications of the bronchi,

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by the frottement of the air against the parietes of the bronchi, where they are heard.

2nd, They result from the echo, in the whole column of air expired and inspired, of the bruit produced by the frottement of the air against the velum palati or neighbouring parts.

3rd, That every bruit produced in the upper part of the respiratory system, must resound with its proper character and degree of intensity in the bronchi.

4th, That in practice we should never conclude the non-entrance of air into the lungs, before we have examined whether some guttural bruit does not exist.

5th, That on destroying the guttural bruit, we can destroy the respiratory murmur, which is merely its echo, and thus obtain in their purity certain bruits of the lung, pleuræ, or heart, which are often confounded with it, and cannot be distinguished with accuracy until they are isolated.

and instead of the respiratory murmur the affected part develops a peculiar sound called broncophony, arising, as we shall have occasion at a future time to see, from the physical condition in which the lung is now placed. Emphysema of the lung, effusion into the cavity of the thorax accompanied by the circumstance of a communication existing between the bronchi and the cavity, and several other affections which the time does not permit me to notice, are all characterized by peculiar modifications of sound which, joined to the rational symptoms, leave no doubt as to their existence.

The different bruits of which I have just spoken take place in the lungs themselves, that is to say, result from different states of the pulmonary vesicles and air-tubes, influencing the manner in which the respired air acts upon their parietes; but there are several other bruits which, though they seem to issue from a fixed point of the chest, and are in reality connected with organic changes in the pulmonary tissue, are yet nothing but the resonance of the voice, and sounds formed in the larynx; or, to express myself with more precision, arise from the propagation of the voice along the trachea and bronchi.

In the normal state of the organs contained in the thoracic cavity, when you auscult the chest, you hear nothing but the pure respiratory sound; you distinguish the rubbing of the air against the cells, as it gradually enters during the dilatation of the chest, or is expelled by the elasticity of the lungs and its enveloping parietes. If you desire the patient to speak, you do not hear any additional bruit: the voice, in a word, does not seem to issue with intensity from the point upon which the stethoscope is applied; but when a portion of the pulmonary tissue becomes solidified, either by an inflammatory affection, or in consequence of the deposit of tubercular matter, &c., you often hear the patient's voice as distinctly with the ear applied to the chest, as if you listened to him in ordinary conversation, this constitutes broncophony; or when the substance of the lung is destroyed by the resolution of tubercular matter, and a cavity of any extent is formed, the voice of the speaker seems to arrive directly from that point of the chest to the ear, and the phenomenon called pectoriloquy takes place. Finally, in cases of emphysema, hydro-pneumo-thorax, &c., we have changes of structure in the musical instrument, if I may so call the chest, which produce a change in its resonance, and thus more or less alter the nature of the sounds emanating from it.

Thus you perceive how, as we advance in the investigation of disease, we obtain at each step new proofs of the importance and advantage attached to the principle I laid down in the commencement of the present course. Investigate for yourselves the causes of the phenomena which you observe, and whenever circumstances will permit, trace up those phenomena to the physical conditions giving rise to them; in this way you will be sure to acquire knowledge of a solid useful nature, infinitely superior to any theory, no matter by whom it may have been suggested; for this reason I have laboured to discover the material causes of many phenomena which my predecessors, regarding as vital, have accepted without any examination, and I have, I hope, succeeded in convincing you that the different sounds and bruits upon which we have dwelt in the last few lectures, are merely the result of certain modifications of a musical instrument, in a word, are the effects of certain physical conditions made sensible to the ear.

This was particularly the object which I had in view in my last lecture; when we entered into a pretty full examination of the different physical conditions presented by the thorax, and saw how it was an instrument eminently fitted, both by its composition and the manner in which it is organized, for the transmission of sound; we also entered into some details on a very interesting subject, viz., the analogy which exists between the human voice and reed-instruments (*à anche*). We drew your attention to the points of resemblance between the two apparatuses, and signalized several particulars in which the human instrument infinitely surpasses any that art can produce. The vocal apparatus forms a most perfect musical instrument. It is most elaborately put together in all its parts; and no other instrument can be compared with it for variety or perfection of tone, or for the timbre and length of the sounds which it is capable of producing.

We have also seen, that the respiratory apparatus gives rise to the development of certain bruits, which it is of the utmost importance to the physician to study, inasmuch as they indicate with certainty the healthy or diseased condition of the different parts from which they emanate. The material causes of these sounds are very evident, and do not require any lengthened discussion: during the act of respiration the air is compelled to enter, and alternately to evacuate the lungs; hence by a simple and natural mode of reasoning, we deduce the production of sound from the rubbing of the particles composing the atmospheric fluid against the sides

of the bronchial ramifications. Several of the bruits thus produced are of a curious nature, and, as I before remarked to you, deserve the utmost study and reflection on the part of the medical man, because they afford one of our surest means of diagnosis of the diseases of the chest, and thus lay the foundation for a rational and successful treatment.

However, before I enter further upon this subject, I wish to direct your notice to an experiment which I performed before lecture; it was made with the object of trying the effects of a new poison, or rather a new form of an old poison, viz., prussic ether. Here it is in this bottle: the odour is strong and disagreeable, and in colour the liquid somewhat resembles Madeira wine. It appears to act exactly in the same way as prussic acid, but it is by no means so active as that poison.

I have made a few comparative trials of both, and found the action of the ether more slow and much less energetic than the acid, like which it seems to affect, exclusively, the brain and central nervous system. Here is the animal upon whom we have tried the effects of the prussic ether. The dog lies, as you see, in a state closely approaching death; the only function which is not destroyed is his slow respiration. In other respects the animal is buried in a state of the deepest and most perfect coma.

Now to return to our subject. The first sound which presents itself for examination is the "bruit respiratoire;" the nature of this sound is simple, and it very clearly results from the free passage and frottement of the air against the parietes of the bronchi, their ramifications, and the pulmonary vesicles. It is easily distinguished by the naked ear, or with the stethoscope, applied to any portion of the chest which is in contact with the lung. However, as the bruit is developed in the interior of the cavity, and transmitted with little intensity to the exterior, the normal sound is not heard at any distance; the ear or stethoscope must be placed immediately upon the surface of the chest, when the murmur of respiration is easily distinguished, and we are then sure that the air enters freely into the vesicular apparatus, and, consequently, that the lung of the person whom we examine is sound. But in some cases we find an alteration of the bruit respiratoire, which, moreover, has peculiar characters at different periods of life. Thus, for example, in the child, up to the age of ten or twelve years, the respiratory murmur is remarkable for its great degree of intensity, a degree so great that it may be perceived by a person who practises auscultation for the first time. This exaggerated condition is called "puerile respiration." On the contrary, in old age the respiratory murmur becomes more and more feeble as the individual advances in life; and, at length, the bruit of the pulmonary expansion can scarcely be recognised. In the language of stethoscopists, we call this "senile bruit" or "senile respiration."

You may now ask me, why does the respiration of the child present this characteristic of intensity? Why is the respiratory bruit so insignificant and feeble in an advanced period of life? We are to look, Gentlemen, for the explanation of the questions I have just put, in the difference of structural arrangement presented by the lung in different ages; and here remark another successful application of the principle of physical conditions, determining what are called vital phenomena. There is, perhaps, no part of the animal economy in which the child differs more from the old person than in the lungs. In the infant, the quantity of blood which traverses the lungs in a given time is much greater than in the old person; hence a greater quantity of air must naturally penetrate the vesicles, in order to operate the necessary change in the blood, and hence one cause of the increased intensity of sound. In addition to this, I may observe, that the extent of the bronchial ramifications, corresponding with the extent of the arterial, is much more considerable in the young subject. On this account the atmospheric fluid enters more forcibly and with greater rapidity, there is increased frottement, and this must, doubtless, be enumerated amongst the causes of the intensity of the respiratory bruit in the child.

In old age a portion of the bloodvessels is obliterated, the extent of the bronchial tree is comparatively small, the density of the lung is at its minimum, and large cells replace the innumerable small vesicles which constituted it at an earlier period of life; the consequences of these conditions are readily deduced: a small quantity of blood circulates through the pulmonary system of the old person: the surface of the vesicles is diminished, and receives a smaller quantity of air; hence there is less frottement, and the respiratory sound becomes more and more feeble, until it assumes the fixed character of "senile."

However, we must confess, that independently of the differences of age, there are certain individual dispositions which give a variety to the respiratory sound, even in subjects enjoying perfect health, and apparently placed in the same physiological conditions. It is necessary for you to bear in mind this remark, other-

wise you may be much embarrassed, perhaps even led astray, in practice. In some individuals the lung is much rarefied, and the respiratory murmur distinguished with the utmost facility; in others, on the contrary, it requires a great deal of attention and habitude in the use of cylinder, to discover the bruit of the respiration, yet the lung is all the time perfectly healthy; finally, in other cases, the intensity of the sound may be modified by different conditions of the parts enveloping the chest: thus, while your patient is thin, when the anterior part of the chest, is only covered with a thin layer of cellular tissue, skin, &c., the respiratory sound reaches the ear directly from the wall of the sonorous cavity, and is heard in its full degree of intensity; but let the same patient suddenly become fat (and we have examples of this rapid change every day in the hospitals), let the patient, I say, become suddenly fat, and the respiratory sound is dull and obscure: the reason is obvious; but it is well to put you on your guard, for the true cause of a phenomenon is frequently mistaken or overlooked, merely because it is trivial and insignificant.

Here is an example before us of a thorax which will serve to illustrate in some respect what we have just now advanced: the patient, when alive, was extremely emaciated and thin. When the lung is inflated through the upper part of the trachea, and the stethoscope is placed on any portion of the surface of the chest, I can hear the bruit of the respiratory murmur most distinctly; the sound produced by the entrance of air into the vesicles is here in fact very intense; the integuments, as you see, have been removed from the front of the thorax, and the muscular layer by which it is covered is extremely thin; hence any sound developed in the interior of the cavity is conveyed through the elastic parietes to the ear, without losing any of its force or distinctness. I would recommend you to make a similar preparation, whenever an opportunity may offer, and accustom your ear to seize and appreciate the various modifications of the respiratory murmur in its normal state; for without a perfect idea of healthy respiration, and an ear somewhat exercised, you cannot expect to discriminate the varieties of sound which present themselves in abnormal conditions of the respiratory apparatus. In the living body the thorax is never seen so naked as the prepared one before us; however, it is well to remember the effect which different states of thinness, embonpoint, &c., may produce on the intensity of the respiratory sounds. In certain pathological cases, the phenomenon upon which we have to form our diagnosis consists, not in an alteration in the nature of the bruit, but in the circumstance, that a normal bruit is heard more clearly and with greater intensity in certain points of the thoracic cavity than in others.

This is a grave question, and one surrounded with many difficulties, but it is of the utmost importance that we should be able to resolve it in a satisfactory manner, because it is connected closely with the existence of solid tubercular matter in the pulmonary tissue. We know indeed from experience, that whenever a portion of the lung is solidified by the deposition of tubercular matter in any quantity, broncophony takes place, that is to say, the voice resounds from that portion of the chest in a very peculiar manner; the vocal bruit is often extremely energetic, but we do not know exactly the reason of the phenomena; the laws governing the transmission of sound through solid bodies, and the different circumstances favouring or retarding such transmission, have not been thoroughly studied by natural philosophers: on this account we have little or no data upon which to proceed; however, we know from common experience that solid bodies act as excellent conductors of sound. It was partly upon this principle that the stethoscope was invented: hence if any portion of the pulmonary tissue be converted into a solid mass by inflammatory induration, or especially by the deposite of the hard, solid matter originally composing tubercles, it is not surprising that a change of structure so remarkable should bring with it a change of resonance, and that one of the normal bruits should be heard with increased distinctness and energy. But remark, that in order to affirm the existence of tubercular concretions from this stethoscopic symptom, the broncophony must be extremely well pronounced, and even then we must seek the aid afforded by concomitant signs.

Thus you see how a study of the normal bruits of the respiration and voice may furnish a diagnosis which it is much the more important to form because in an early state of the disease, when alone we can hope to prevent its fatal development, the rational symptoms are either very uncertain, or are null. Every act of respiration consists of two parts, inspiration and expiration; hence we may divide the normal respiratory murmur into two parts also; one corresponding with the entry of the air into the pulmonary cells, the other depending upon its exit from the same parts; in the first case the sound is much more clear and loud than in the second, because it depends upon the agent which distends the lungs; because the pressure, frotte-

ment, and resistance to the passage of the air, are greater: but in the return of the lung to its medium state, or condition of neutrality between expiration and inspiration, the sound developed is more feeble, because there is less rubbing of the atmospheric fluid against the walls of the vesicles, from the ready exit afforded to the air through the mouth and nares. This difference is easily perceived on listening to the naked lung, as the one before me on the table; the air in entering has to overcome the great elasticity of the pulmonary tissue, which constantly reacts against it, and must of necessity give rise to a certain degree of pressure; during expiration, or, in the present instance, during the discharge of air from the cells, no such obstacle has to be overcome, the frottement of the air is insignificant, and the murmur is barely distinguishable.

The respiratory bruit thus produced by the passage of air to and fro through the air-cells, is modified during disease in a variety of forms; but let me remark from the outset, that as the original sound is itself the consequence of a physical cause, so almost all (and if not all, we must accuse the imperfection of our knowledge), so almost all the modifications it undergoes are likewise to be accounted for by the existence of certain abnormal physical conditions, the result of disease.

These modifications, to which LAENNEC has given the generic name of "râle," consist in the transformation of the normal sound into another, the result of the air passing through conduits whose caliber is diminished, or in most cases into a sound resembling that of bullæ passing through liquids of different kinds. Thus the healthy respiratory sound may be changed into what is called the râle muqueux, or the râle crepitant; or, finally, in some cases may resemble a true sifflement. I think it will not be difficult to demonstrate that these several modifications are merely the result, as we have already said, of certain physical conditions: the proof is, that we can reproduce the greater part of them in the human lung, when separated from the body. If you introduce any viscid fluid into the interior of the bronchial ramifications, as I shall presently do, and thus imitate as nearly as possible the physical conditions that exist in certain states of the lung during life, you will develop various abnormal bruits, such as the mucous râle, the râle crepitant, &c.

I shall now proceed to perform an experiment of this kind before you. Here is the dog on whom we tried before lecture the effects of prussic ether; he lies, as you see, in a state of the most profound coma; we will throw a quantity of fluid into the lung, and observe the phenomena which take place; the poison has produced its usual narcotic effects; the circulation in the lungs for the last five hours has been very incomplete; hence, from the obstacle to the free passage of venous blood through the capillary vessels, an abundant exhalation has taken place into the substance of the pulmonary tissue, and various abnormal sounds will be developed according to the nature and extent of the obstacle. This, Gentlemen, is actually the case: when I place the stethoscope upon the animal's chest, I hear a distinct râle ronflant; the effusion of liquid into the substance of the lung and pulmonary tissue prevents the free entry of air into the vesicles, the respiratory sound is confined to the larger tubes, and resembles sufficiently the noise made by an individual when he snores. I now throw in a quantity of fluid made viscid by the mixture of a quantity of white of egg, and on inflating forcibly the lung, the stethoscope betrays the presence of the râle muqueux, which did not before exist. I have now fitted a larger pipe to the trachea, and force in a more considerable quantity of fluid; the character of the râle has changed; the viscid substance has no doubt been in part washed away, and we have a well-pronounced râle sifflant. You know there are three kinds of bruits which most commonly fall under the attention of the physician, viz., the râle muqueux, the râle bronchique, and the râle crepitant; this latter is exclusively confined to the pulmonary vesicles.

These are all one and the same phenomenon, but occurring in different portions of the bronchial tree; thus if you have a quantity of mucus contained in the larger tubes, and this is agitated by the passage of air through the viscid fluid, you have the râle bronchique; in some cases this bruit becomes very intense, as, for example, before death, when the sound is produced even in the trachea and larynx, from the great quantity of mucosities which collect and block up those parts. It is easy enough to reproduce each of these sounds, and to show not only upon what physical conditions they depend, but what are the physical causes that give rise to the points of resemblance. Thus it is not rare in certain cases of chronic catarrh to hear a râle which may be very readily confounded with the râle crepitant; this is the "râle bronchique à bulles fines," which has for its seat the smaller ramifications of the tubes, and is made up of the sum of the small bruits generated in them. As to the râle crepitant, it evidently passes in the pulmonary vesicles themselves, and is pro-

duced by exactly the same mechanism, viz., the displacement of a viscid fluid (mucus or blood) by the air entering the cells: the character of crepitation by which it is distinguished, may be well accounted for by the great number and infinite smallness of the little pouches into which the atmospheric fluid penetrates. This râle, as we shall by-and-by see, may occur under several different circumstances, but the essential one is the deposit of a fluid in the pulmonary vesicles.

CLINICAL MEDICINE.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

A. T. THOMSON, M.D.,

Physician to the Hospital, and Professor of Materia Medica in the University of London.

LECTURE XII.

INFLUENZA.—*Modification of the Disease, in the Form of Bronchitis.*

An epidemic has lately prevailed in the metropolis; and, as might be expected, we have had specimens of it here. It assumes either the form of acute bronchitis or that of tonsillitis. It is not easy to explain this diversity of form and of locality of the disease, in different individuals; but I am of opinion that these diversities are nevertheless the results of the application of the same exciting cause, whatever that may be, modified in its effects according as the individuals are previously predisposed to affections of the tonsils or to inflammation of the mucous lining of the bronchial tubes.

In the cases which I have seen in private practice, the degree of severity and the continuance of the disease, whichever form it assumes, seems to depend greatly on the activity of the treatment in the commencement, although, undoubtedly, something is due to the constitution of the individual affected; those of a strumous diathesis suffering more severely than others in both cases. In illustration of this remark, I shall first direct your attention to the bronchitic form of the disease, in two individuals of opposite constitutions, in whom the same remedial means have been adopted.

Case 1.—The first case is that of Samuel Saxton, a coach-smith, 17 years of age. About a fortnight before he entered the hospital, he felt symptoms of a severe cold; these increased and were daily augmented towards night. On the 20th, when he came in, he complained of great lassitude, pain in the left side, and a feeling of tightness across the chest. The pain was augmented on taking a full inspiration; and the breathing was also short and painful. The cough was frequent, and the expectorated matter thin and saline. The mouth generally felt dry; the papillæ of the tongue were elevated, and an uneasy sensation was experienced at the epigastrium, which the patient referred to the stomach. The bowels were open; the urine abundant but high-coloured; the pulse 72, sharp and full; and the skin dry. He was ordered by the house-apothecary to apply a large blister on the painful side; and to take a pill, consisting of one grain of calomel and one of opium; and on the following morning, before I saw him, he had taken a brisk purgative.

21. The pain of the side was not much relieved; percussion over the chest did not detect any loss of resonance; and on applying the ear to the thorax, there was still the *sibilant rhonchus*, demonstrating, in my opinion, the congested state of the membrane, and the necessity for relieving it by a moderate bleeding. The patient was, therefore, ordered to be bled to the extent of ʒxij; and the venesection to be followed by a pill, containing one grain of calomel, one of opium, and three grains of true James's Powder. He was put upon low diet.

22. The pain of the side was much relieved; the cough had abated; and his chief complaint was weakness.

23. He was still better; but, as his bowels were confined, he was ordered a black dose, and to discontinue all medicine.

28. He is now in a state of convalescence, and complains of nothing but debility. Let him take f.ʒij of infusion of columba twice a day.

Case 2.—The second case was more severe in its characters. The name of the patient is William Hadderman, an Irish labourer, thirty-six years of age. He stated that he has suffered under the effects of frequent colds for the last three months, which he ascribes to having discontinued the use of a flannel waistcoat. But he felt no inconvenience from these attacks until Saturday the 15th instant, when he was forced to leave off work, and to keep his bed. He acknowledges that he is a very hard drinker, and that he drank a pint of wine in the day on which he was taken ill.

His complaints, on entering the hospital, were tightness across the chest, cough, dyspnœa, and great shortness of breathing. His pulse was 100 and regular; his tongue furred; all appetite for food was gone; thirst was considerable; the bowels were confined, and the urine was scanty and high-coloured. When he took, or rather attempted to take, a deep inspiration, he experienced a dull pain under the sternum. The temperature of the body was not greater than natural; on the contrary, there was chilliness, especially round the knees, which felt very cold. He complained of great giddiness and debility when in the erect posture.

Under such circumstances it was thought proper to bleed him to the extent of twelve ounces, and he was ordered to take a draught directly afterwards, consisting of f.ʒss of muriate of morphia, f.ʒj of Hoffman's anodyne, and f.ʒj of water. On the following day, the 22nd instant, he felt no better; his cough was more teasing and frequent; the expectorated mucus was thinner and more acrid; the embarrassment of breathing and the uneasy sensation of the chest were more aggravated by the coughing; and the general febrile symptoms were augmented. After opening the bowels with a saline purgative, he was ordered gr. j of tartar emetic in an ounce of water, to be taken once in four hours.

23. The pulse was more tense, and the constriction of the chest undiminished, whilst the other symptoms were nearly as yesterday. The tartar emetic had vomited him twice, but not afterwards, and, indeed, it now scarcely excited nausea. He was again bled to ʒxij, and the mixture ordered to be continued.

25. He has improved since the second bleeding; the dyspnœa in particular has diminished, and is troublesome only in the evening. The cough, however, is still urgent, although the expectoration is less copious, and more opaque or pearly. He complains greatly of the accompanying debility, but the pulse is neither very weak nor frequent, and displays no irregularity. On auscultation of the chest, the sibilant rhonchus is still perceptible, but owing to the feeling of weakness which he states to be so overpowering, I did not think it advisable to repeat the bleeding; but I ordered a large blister, with the view of exciting sudden counter-irritation, and directed the continuance of the tartar emetic.

26. The improvement in every respect was marked; the breathing was almost free from embarrassment; and although he was weak and the pulse was feeble, yet there were no symptoms of collapse, such as frequently occurs in these attacks of epidemic bronchitis.

28. The principal symptoms now are cough and great debility. There is still no mucous rhonchus, and were it not for the debility, I should again bleed him.

In both these cases, Gentlemen, the disease approached nearer to the character of bronchitis than any other affection of the chest. It differed, however, in the slightness of the cough, and also in the length of the intervals between the paroxysms or fits of coughing. The expectorated matter, in all the cases of the disease which I have seen, both in public and in private practice, is never so thin and acrid as in ordinary acute bronchitis; and the pain of the side is seldom present in that disease, the pain of true bronchitis being more obtuse, and situated more under the sternum, than is general in this affection, which, were we to judge solely from general symptoms and the acute nature and seat of the pain, has rather the semblance of a slight attack of pleurisy than of bronchitis. But the clear, distinct resonance on percussion, and the absence of any crepitant rhonchus, with the simple, mucilaginous nature of the expectoration, distinguish it at once both from pleurisy and pneumonia.

There is much difficulty in referring this attack merely to sudden alternations of temperature, combined with moisture such as has lately prevailed in our variable atmosphere. The common form of bronchitis has been rather less prevalent than usual this winter, and from the modified character of the present complaint, and the great extent to which it has prevailed, I think we are fully authorized in referring it to a peculiar epidemic state of the atmosphere. What that state is I certainly shall not inquire. The most striking feature in this form of the epidemic, in which respect it does not differ from the severer forms of acute bronchitis, is the excessive debility that follows the attack, when the first stage of the disease is not rapidly subdued by active antiphlogistic or depleting measures. When the patient has been bled at first, and the bleeding is followed up by antimony, calomel, and opium, little weakness ensues, and what takes place soon yields to a return to ordinary diet and habits of life; but, if the attack be allowed to run for some days, however readily it may afterwards be subdued by active treatment, the debility is always great, and requires the use of tonics to restore the strength. The best tonic, however, in such cases, is a removal from town for a few days.

I cannot avoid directing your attention to the importance of auscultation in the

bronchitic form of this affection. If the sibilant rhonchus continue, it is a proof of the thickened condition of the bronchial membrane, and the diminished diameter of the tubes, arising from inflammatory congestion, and demonstrates the propriety of continuing the depleting plan of treatment. On the other hand, if that have not been sufficiently pushed in the first instance, and either the ear or the stethoscope discover a kind of gurgling sound, as if the air were inhaled through a frothy mucus, or, as it is termed, the *mucous rhonchus*; the propriety of bleeding, or farther depleting, must then be considered as at an end. By this mode of examination, also, we can form a pretty accurate conclusion respecting the seat and extent of the diseased action. When the stethoscope affords an idea of large bubbles, and the respiratory sound is not very obscure, we may conclude that the inflammation has not extended beyond the large tubes; but when this is not the case, and the mucous rhonchus is wholly uninterrupted, fine, and accompanies the whole of the respiratory act, then we may determine that the inflammation has extended even to the bronchial cells, and that the danger is much augmented. We find, when this is the case also, that the resonance on percussion is obtuse. The risk, in this event, arises from the copious secretion, which, choking up the entrance of the air into the bronchial cells, prevents the necessary changes taking place in the blood. Our prognosis, under such circumstances, must always be cautious; but, when the countenance becomes pallid, with some degree of lividity—when the mucous rhonchus is fine and universal, and scarcely any respiratory murmur is heard, it may, without hesitation, be pronounced that recovery is scarcely possible, or, rather, that the fatal termination of the disease is near.

[The remaining portion of this lecture will occupy a place in the next LANCET, want of space preventing us from publishing the whole in the present Number.—ED. L.]

PETECHIÆ are frequent in epidemic fevers. It is perhaps worth remarking that this eruption is not visible on negroes; at least I never could discern them in the case of any individuals of that race whom I have seen affected with fever in Africa, or elsewhere. The same thing is stated by Stendal. A writer in an old periodical speaks of a case in which the eruption was so rife as to be seen through the nails of the patient. They were very common in the Irish epidemic of 1817.—*M'Cormac on Continued Fever*, 1835.

ON

ABSORPTION.

By T. G HAKE, *M. D., Senior Physician to the Dispensary, Brighton.*

THOSE who have attentively followed the process of digestion, and therein witnessed the number of efficient causes which combine to produce that one great effect, the elaboration of chyle, must have been deeply impressed with the importance of the law by which all foreign bodies are excluded from the circulating system.

Nature has established within man an extensive digestive apparatus, consisting of many organs, in order that substances received from without may be converted into that peculiar fluid, which in its first state already shadows forth vitality; and foreseeing the accidents to which her work might be exposed, she endowed the absorbents and their chyle with that power of consent which prevents unqualified matters from passing into the lacteal vessels.

But the chyle, properly prepared, after it has gained admission into the lacteal vessels, has still to traverse their length, and to be submitted to their influence, before it can be accepted by the veins; nor from the veins can it be received by the arterial system until it has been submitted to the influence of the pulmonary apparatus.

This process, from the reception of food to the arterialization of the chyle, occupies several hours, from which we may estimate the precautions taken by nature to exclude excrementitious as well as undigested matter from the blood.

We cannot too seriously reflect on the functions which precede absorption. Not that which *we* please, but that which *nature* pleases, is taken up by the lacteal vessels. If, by way of provoking the justice of the established laws, we introduce improper substances into the alimentary canal, a train of symptoms is excited in the machine which is peculiarly adapted to effect the rejection of the offensive matter, and induce a state of the system which can endure its local effects until the period of expulsion arrives.

Even wholesome food produces an excitement in the parts through which it passes; for whatever comes in contact with the mucous cavities, stimulates them in a manner peculiar to itself. Healthy food induces a healthy excitement; it causes a proper action of the digestive powers, and a proper reaction in the sys-

tem. When the local action is healthy, there is a metastasis of healthy action to remote parts; when the local action is unhealthy, it is translated after the same fashion; and this is a wise law, for without the metastasis of the local action to every part of the system, the body could not raise that train of symptoms which alone is adapted to combat the effects of unhealthy action, and to ensure the expulsion of its cause.

Themes of reflection are furnished by the disposition of the lymphatics in the plexus and ganglion. In passing through its vessels, the chyle is, doubtless, modified, and approximates more to the nature of blood as it approaches the veins. Some peculiar end is answered by the traverse of the chyle through its vessels and glands, or the veins would absorb at once instead of receiving the chyle from other channels. There is also some peculiar object accomplished in the lengthened course which the chyle travels, or it would empty itself into the veins before arriving at the subclavian region. But from recent researches, confirmed by examinations into their truth, it appears that the lymphatic ganglions lead into the venous circulation. How admirably does this arrangement explain the use of the ganglionic portion of the lymphatic system! That portion of the chyle which takes the full course from the intestines to the subclavian, would be unfit to mingle with the venous current if the path were shorter, from insufficient submission to the influence of its vessels. But does not the chyle from the lymphatic glands enter the circulation by a shorter course? The ganglia are formed of lymphatic vessels twisted and folded upon themselves, so that there is within a small space, a tube of considerable length, and the chyle having traversed one or more of these glands, does not enter the veins until it has accomplished as long a course as if it had taken the direction of the subclavian vein.

But as no plan exists unnecessarily in the machinery of the living world, it is our duty to reflect on the reason for this early communication between the lymphatic and the venous systems. At first it would seem that a less expense of organization would have been incurred by the establishment of but one entrance into the veins. These frequent communications, however, fulfil an admirable end. By the admission of chyle at various parts into the venous system, the blood is gradually prepared for the reception of a new fluid; the mixture of the chyle with the blood is not sudden; the chyle is gradually accustomed to the stimulus of the blood, before the great flood of chyle is emptied into the subclavian vein.

The Sources of the Circulation. — The lymphatic vessels, if they do not constitute the cellular tissue, are, at least, as universal. They communicate, as has, with a few exceptions, been demonstrated, with all the solids of the body. The substance of the organs stands in the same relation as does the food to the absorbents. In their healthy state the lymphatics take up, like the absorbents, all that is fit to be carried into the circulation. The ganglions of the lymphatics are formed for the same purpose as those of the absorbents, and either set of vessels terminates alike in the veins.

The Circulation of the Blood.—The passage of the sanguineous fluid from the left auricle and ventricle through the arteries, and thence through the capillaries into the venous system, constitutes the greater circulation, while a continuation of the blood from the right auricle through the corresponding ventricle and the pulmonary arteries and veins, constitutes the lesser circulation. But while the blood circulates uninterruptedly through these channels, there are eccentricities in the circulation, which, from being more slow in their movements, have been described as distinct functions.

The Eccentricities of the Circulation.— In almost every part of the living body, arterial ramifications, instead of terminating immediately in venous radicles, expand their internal serous coat, so that several together spread into a cavity, which, however, is not complete without receiving similar assistance in its formation from the veins, which, acting as absorbents, are the opponent vessels of the arterial ramifications, or the exhalents. Between the two sets of vessels, then, the exhalents and the absorbents, whose lining membranes are serous, there is a serous cavity, through which, from one set of vessels into the other, a serous fluid circulates, itself derived from the arterial, and received, after having traversed the serous cavity, into the venous flood.* Other arterial ramifications, equally universal with the above, have their terminations in serous membranes of a vesicular form, which, however, are filled with the substance composing the solid organs. These vessels, like the former, also carry on the circulation, not of the sanguineous fluid itself, but of some of its elements,

* It is rational to suppose that veins receive what arteries pour out. If such be the case within the close cavities, there is some foundation for the supposed analogy in the absorption of fluids by veins at the intestines.—T. G. H.

and this constitutes *nutrition*; while the lymphatic vessels, after a time, carry the solid deposit on to the veins again.

Inasmuch as the circulation has an open source in the primæ viæ, so it has its terminations, which communicate with external space. This takes place in the mucous cavities, wherein the secretions, after having fulfilled some end, are destined to be carried off from the body. In consequence of this intention, there is no absorbent apparatus provided as the opponent of the secreting organs of these cavities, even as there is no secreting apparatus opposed to the absorbents of the primæ viæ. Thus the cavities of the first and last functions of what may be denominated the "general circulation," are open, as no opponent vessels contribute (as in the central circulation) to its completion.

Having thus taken a view of those functions which precede absorption, as well as of its contemporary functions, we may proceed to the laws of absorption itself.

The digestive processes which precede the absorption of the chyle, are equivalent in value to an opponent secreting apparatus. Their scattered works, all tending to one end, amount to the same thing as a concentrated gland, or a membranous surface, which secretes chyle. They bear exactly the same relation to the absorbents, as the vessels which prepare the solid organs do to the lymphatics; while the chyle itself, and the solids, stand in a like relation, each to the organs which form and remove the one and the other. Moreover, there is an analogy between these two sets of functions which has been hitherto unsuspected, and which I shall only hint at in this paper, since it will hereafter form the subject of a separate essay, when the facts on which it is founded may be better digested, and the arguments are more matured.

The analogy consists in the fact, that when the digestive organs, being in fault, are unable to supply nourishment to the system through the mesenteric absorbents, and the lymphatics are obliged to carry away the solid parts, in order to replenish the blood, there is bile secreted, if not in all the solids, at least in those which suffer from lymphatic absorption, when atrophy is an attendant on dyspetic disorders. I have a collection of instances in which loss of appetite, indigestion, the absence of bile in the stools, a bilious hue over the whole body, and atrophy, have co-existed; or if the latter symptom have not been visible, it has been in individuals in whom there was habitual fatness, of which I shall presently mention a striking example. In these cases it is necessary to prepare the solids, especially the adipose substance, for animalization. I have no doubt that bile, or a substance of a similar nature, is secreted in the part, and mixed with the solids, in all instances, before the latter are taken into the blood; but this digestive process is more visible where the waste of the system is supplied solely from the adipose tissue, or even from the organs themselves. I have recently dissected a woman who, from the nature of her disease, suffered from constant vomiting. Every kind of food was rejected by her stomach, so that there was but a scanty elaboration of chyle. However, that fluid was replaced by the digestive process being carried on in the adipose tissue, and the consequent increase of lymph. In this person the subcutaneous adipose tissue of the abdomen was at least two inches in thickness, and had the appearance of having been steeped in bile. The manner in which that fluid is secreted in other parts than the liver itself, will be explained presently.

Wherever absorbents are opposed to secreting vessels, whatever the latter may throw out, the former may take up. There is a stimulus in a morbid secretion, which acts in two ways: in the first place, the secretion excites the nerves of the organ which produces it in such a manner that those of the opponent absorbent may take on a similar action to their own; in the second place, on arriving at the absorbent, the secretion produces a local excitement, which confirms the nervous sympathy, and the two together consent to the absorption of the morbid secretion.

Thus, eccentricities of secretion may be corrected by an imitative art in the absorbent system; but there is a decided limit to absorption, for that which had not been secreted, or (what is equivalent thereunto) had not undergone chylification, can never be absorbed.

The facts on which the theory of extraneous absorption depends, have not been physiologically explained, I shall therefore consider the effects on the system of poisons and other irritants which are supposed to have been conveyed into, and have even been found in, the blood, or in some of its secretions.*

Brighton, Feb. 22nd, 1835,

* To be continued.

APPARATUS FOR REMOVING THE PRESSURE OF THE ATMOSPHERE FROM THE BODY OR LIMBS.

Invented and Described by

W. Reid Clanny, M.D., &c., *Sunderland.*

During the visitation of cholera at Sunderland, I ordered a tin vessel to be constructed, of such depth and diameter as to receive the arm of a man. Into this cylinder water at ninety degrees was poured to a certain height; and, with a scale divided into onnces, the water was readily measured. When I found that blood could not be caused to flow from an opened vein (which was frequently the case with cholera patients), the arm was immersed up to near the shoulder, in the water, and by this method I generally obtained as much blood as I desired, readily discovering by the scale the quantity of blood removed from the system.

Soon afterwards it occurred to me that if I could remove the pressure of the atmosphere from a limb, or from any part of the body, by the agency of the air-pump, in a correct and cautious manner, I might thereby accomplish several desiderata in the practice of medicine. After much reflection I had the good fortune to carry my idea into effect, and have consequently been enabled to abstract the atmospherical air from a limb, or even from the whole body, with the exception of the head and part of the neck.

Long after I had carried my plans into execution, I found it stated in a medical journal that Dr. Murray of Belfast had effected the construction of an apparatus for exhausting the atmospherical air from the surface of the body; but the manner and results thereof I have not yet learned. My wish then was, and still is, that Dr. Murray may have all the honour due to his ingenuity, as he was the first, as far as I can ascertain, who published anything upon this subject; but as he has not informed us (at least I have never seen an account) of the manner in which he cut off the communication with the atmosphere, I consider it my duty to avoid further delay in laying my method before the profession, with the results which I have obtained during the last three years; besides, within the last week I have read an account of an apparatus employed for similar purposes, devised by Dr. Junod, in the *Medical and Surgical Journal of London*, which satisfies me that I cannot be in error. Dr. Junod has not by any means explained *how* he cuts off all communication with the admosphere, and this omission by Dr. Junod, as well as by our countryman, upon this most important point, calls upon me to explain my method, which I hope to do so fully and so satisfactorily that any medical man may now be enabled to accomplish all he desires with it.

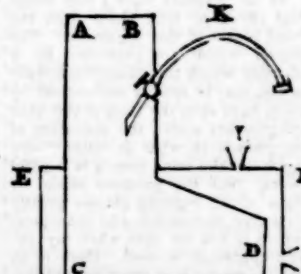
My priority is indisputable, as is well known to my professional friends in this place, though the merit of Doctors Murray and Junod is not thereby lessened; and had not the reasons mentioned above, and a pressure of business, both medical and scientific, prevented me from making my discoveries public, they would in all probability have appeared, long ere this, in the pages of The Lancet.

Upon the breaking out of cholera in this town, I was satisfied that when a patient was favoured at the commencement with universal transpiration, his life was thereby saved; and at page 84 of my work on that epidemic, I gave a case, which was the second one, and which proves this fact in the clearest manner.

At that time the apparatus which is the subject of this communication, presented itself to my mind, and had time permitted I would have carried my views into execution, during the visitation.

At page 86 of the above-mentioned work I gave proofs of the value of free transpiration in cholera cases, which must have priority of all others, though I find the following remark in a well written work by Dr. Hawthorne, entitled "A Dissertation on the best Mode of treating Spasmodic Cholera. London, 1834, &c." "I have also assigned to perspiration a station among remedies to be employed in the cure of that disease which has not been given to it by any other."—(Page 34, London edition.)

Section of the Apparatus.



I beg here to remark that, in all probability, my work on cholera has not been read by Dr. Hawthorne.

Let *A*, *B*, *C*, and *D*, represent the exhausted vessel, *E*, *F*, *G*, and *H*, the apparatus for containing heated water. Let *I* be the tube through which the water is poured, and which is afterwards to be firmly corked, and *l*, another tube, to draw off the water when it is no longer required, and which is also secured with a cork. *K* is a flexible tube of strong leather, which must be considerably longer than is here represented. At one end this tube is attached to the exhausting vessel *A*, *B*, *C*, and *D*, and at the other end, by means of a connecting joint and a stop-cock, to the aperture in the plate of the air pump. At *A*, *B*, the top of the exhausting vessel is attached to the limb by five or six pieces of strong white leather, over which good adhesive plaster is to be neatly spread. These pieces ought to be four or five inches in length, and three or four inches in breadth. In applying these plasters, it is needful to be dexterous and careful in attaching them first to the limb, and then to the outside of the tin tube, holding on both ends, steadily and firmly, with both hands, till they are firmly fixed. The next piece of plaster ought to overlap the last one at least one inch, taking special care that the plasters adhere to each other as firmly as possible. With these precautions no air can ever find its way into the exhausted vessel, no matter how much the process of exhaustion may be carried on. Indeed the limb, or the whole body, by a similar attachment round the neck, may be most perfectly isolated in respect to the atmospherical air.

In every case I find it needful to attach the mercurial guage to the air-pump, so that the mercury may give me accurate information as to the extent of the exhausting process. At the same time the state of the patients is to be watched most carefully. In no instance have I ever found any bad effects to take place from the continued action of this apparatus. The phenomena which are presented by a surface from which the atmospherical air is removed, may be readily understood by those who have seen the state of the skin and integuments under the operation of cupping-glasses, in what is called "dry cupping." At the same time it is needful to remark, that the pressure made by the edges of the cupping-glasses greatly hinders a free circulation and transpiration, which is not the case when my exhausting apparatus is used. Here is *no pressure*, no matter how great the exhaustion may be.

In all instances continued exhaustion increases the caliber of the vessels of the integuments, and the flow of blood towards the surface, and, as a matter of course, augments the heat and transpiration, and if the exhaustion be continued, the transpiration of the limb will be condensed and may afterwards be collected. In some cases, from the leg and foot, this has amounted to two fluid ounces at each operation. The heated water surrounding the exhausted vessel not only regulates the temperature of the limb operated upon, but also augments the powers of the apparatus.

I have never known any particular effects to take place from continued exhaustion of the atmosphere from a limb, except a sensation of stiffness or "stagnation," by which term we are to understand that the motion of the limb or limbs is less free than before. In some instances a tingling sensation was mentioned during the operation of exhaustion, but I am of opinion that the anxiety and slight alarm occasioned by such peculiar treatment, excited false impressions, and ought not to be cared for when we use this instrument. In general it is advisable that the patient be placed in a horizontal position, or at least at the angle of 45, during the operation of exhaustion, so that the circulation in the superior portion of the system may be suitably equalized, particularly in dropsical cases, when it is desirable to remove as much serum as possible from the inferior extremities. The respiration is more uniform, and nausea or syncope will readily be prevented, by such position.

I find that a *very* slight exhaustion causes blood to flow from an opened vein, but as ecchymosis is apt to be induced by this plan, I am of opinion that the simple water-bath mentioned above is a more suitable apparatus for forcing a flow of blood from the system. This new plan facilitates, at the commencement, the effects of cabbage-leaves, and may be alternated with their use. The diseases in which I have found this instrument of greatest value, are gout, dropsy, rheumatism, and anomalous pains. In these diseases the judgment of the physician must be exercised both as to the extent of exhaustion and the length of time to be occupied in the operation, and for which it would be difficult to lay down suitable rules for his guidance.

This plan of isolation I have never yet found to fail me.

Sunderland, Feb. 10, 1835.

CHLORURET OF LIME

IN

POISONING BY EXTERNAL ABSORPTION, SECONDARY SMALL-POX, &c.

To the Editor of THE LANCET.

SIR,—The following case, showing the advantage of using a solution of the chloruret of lime, appears to me to deserve the attention of the profession in similar cases, particularly in all that may be termed "poisoned wounds," arising either from the bite of rabid and other noxious animals, or from the absorption of animal matter derived from dissection wounds, &c. I remain, Sir, your very obedient servant,

W. HACKET, M.D.,
Surgeon to the Forces.

Newry, Feb. 21, 1835.

On Friday, the 23rd of January last, Mr. Guy, a general practitioner, resident here, attended a poor woman in labour. He stated it to be a "shoulder-and-arm presentation, and that he had, in consequence, to introduce his arm in utero for the delivery." After some trouble, she was at length delivered of a fœtus in a highly putrid state. Nothing particular occurred to him until three days afterwards, Monday the 26th, when, on getting up in the morning, he felt a peculiar sensation in his arm, but which did not arrest his attention. He breakfasted as usual, and rode some miles into the country to visit his patients. On returning at about three p.m., he felt himself exceedingly unwell, and complained much of the pain of his arm, and on meeting Dr. Mollan, a practitioner here, he requested that Dr. Mollan would visit him, sending likewise for me. I found him lying on the sofa, with a peculiar, alarmed, haggard, and anxious look, the skin hot and pungent, the pulse rapid, his right arm bare, and exquisitely painful all along the course of the absorbents up to the axilla. So excessive was the pain, that he could scarcely allow me to place my finger on its radial artery. He complained, too, of the pain being more pointed in one spot, seeming to him to extend from the second joint of the middle finger. The whole of the absorbents could be traced by the eye along the arm to the axilla, the glands of which were indurated and painful. So accurately pencilled were these in their course, that one might almost imagine they had been traced along by fine lines of vermilion.

From the history given us, we did not doubt that this was a case arising from the absorption of morbid matter, for the uterine contraction had been considerable on the arm, though we carefully examined the right hand and arm without observing abrasion or wound of any kind; though it is well to mention that there was at the time a slight recent wound on one of the fingers of the *left* hand. Finding that his bowels had been torpid that day, we directed a purging enema to be immediately administered, and a purging draught to be taken, and also desired that the whole arm, from the shoulder to the points of the fingers, should be covered with linen cloths, frequently wrung out of a solution of the chloruret of lime.

We left him at five p.m., and on visiting him again at eight in the evening, we found him very much easier. He expressed the comfort which he had felt in about an hour after commencing the application, stating that he had even had some sleep, though his skin was still hot, and his countenance not improved. An antimonial mixture was then prescribed, and he was directed to continue the use of the lotion. He passed a good night, and the bowels were freely acted on, and in the morning we found that the arm was not nearly so painful, nor the bright scarlet hue of the absorbents so strongly depicted, though the arm was still swollen. The axillary glands also appeared softer to the touch.

Suffice it to say, that this plan was persevered in during the three following days, when Mr. Guy was able to resume his wonted duties, though there was still some little tumefaction on the second joint of the middle finger, which had, as he termed it, "a numb-like feel."

I have no doubt, that had we followed the plan which is usual in similar cases, and used warm fomentations or cold saturnine lotions, or even alternated both with warm poultices, our patient's sufferings would not, to say the least of it, have been so readily and happily relieved.

Though I did not intend to extend this communication, yet as I am on the subject of the use of the chloride of lime, permit me to say, that in secondary small-pox, that is, variola after inoculation, or the modified form after vaccination, both of which unhappily have been for some weeks, and still continue, rife in this town and neighbourhood, I have derived the greatest advantage from inserting the point of the lancet into the base of the pustules, when numerous on the face and body, and gently pressing out the matter, afterwards using the lime lotion freely to every part. It is inconceivable how much relief the patients invariably expressed

themselves to derive from this treatment, requesting that "the wash" might be left within their reach, to enable them to use it frequently. The advantage of this plan seems to me to be such as to qualify it to supersede that of M. Serres with lunar caustic. Though he be right in urging its efficacy, yet this equally arrests the progress of the pustules, cuts short the secondary fever, and (a great desideratum) prevents pitting. I have also prescribed the solution as a gargle, which has the advantage of destroying the abominable fetor so characteristic of this disease, giving it also internally, a teaspoonful in a wineglass of water, three, four, or five times a day. I have received from other practitioners who, on my recommendation, have thus treated this formidable and loathsome disease, the most favourable accounts of its employment. I shall, perhaps, take another opportunity of calling attention to the use of this remedy in erysipelas, either of the scalp, the face, the trunk, or the extremities, as well as in the various forms of cynanche, or the excellent advantage to be derived from its use in ill-disposed ulcers, particularly when situated on the extremities.

EPILEPTIC APOPLEXY.

To the Editor of THE LANCET.

SIR,—The following case, to which Mr. Clarke gives the above name, having excited considerable interest in my mind, I have transcribed a report of it from my note-book, to offer it for publication in your valuable Journal. I am, Sir, your obedient servant,

F. L. PULLING.

6, Dean-street, Borough, Feb. 24, 1835.

Jan. 22. I accompanied Mr. Clarke (as his pupil) at 8 p.m. to visit a boy about twelve years old, who was said to be in a fit. We found him labouring under violent convulsions, his pulse quick, full, and hard, and the pupils of the eyes dilated nearly to their full extent. On inquiry it was ascertained that during the day he had appeared tolerably well, his bowels were free, and he had a short time before taken his meal at tea time with his usual appetite. Supposing it to be a simple convulsive fit, arising from indigestion, which would soon subside, nothing was immediately done; but after waiting a short time, and finding that the jugular veins were distended with blood, and that there was turgescence of the vessels of the head generally, whilst the fits were increasing in violence, the true nature of the case became apparent. Mr. C. accordingly opened the jugular vein on the left side, and abstracted about eight ounces of blood. This not affording relief, the vein on the opposite side was opened, and six ounces more were taken away. No amelioration ensuing from this, a vein was opened in the arm, and the blood was allowed to flow until a decided impression was made on the pulse, and the convulsions had moderated; but it was not until thirty ounces in all had been abstracted that any effect was produced. Mustard poultices were then applied to the feet, and a blister was placed on the back of the neck; the hair was cut off close to the scalp, and a cold lotion was directed to be kept constantly on the head. A purging mixture was prescribed, of which the mother was desired to give him a part as soon as consciousness returned, and repeat it every hour until the bowels were freely evacuated.

23. Ten a.m. Patient much better, has been sensible since two a.m; has taken all the medicine without much effect, the pupils of the eyes have resumed their natural size, the tongue is much furred, and there is considerable sharpness of the pulse; the blister has risen well. Pergat lot. et mist. purg.

Seven p.m. Complains of great headach and thirst; head and skin very hot; pulse 144; bowels relieved six or seven times. Hirud. vj temp. *Hyd. c. Cret.* gr. vj 4is horis. Cont. lot.

24. Has passed a restless night, talking incoherently; complains much of his head; leeches bled well; bowels open. Rep. hirud. vj. Perg. lot. (capit. raso) et pulveres. App. emp. lyttæ nuchæ.

25. Passed a better night; headach better; pupils contracted; pulse 108. Pers.

26. Much better; passed a good night; slept much during the morning; no headach; feels hungry; wishes to get up; pulse 100, sharp; tongue cleaner. Perg. lot. et Cap. pulv. ter die.

30. Has gradually improved; tongue cleaner every day; takes his powders twice a day only; pulse 80, weak, and easily excited.

31. After sitting up half an hour, he had a slight fit last evening, and was delirious in the night. Head hot; pupils dilated; pulse 70, sharp, small, and hard; bowels moved but once. The lotion, which had been discontinued, to be again applied to the head; bottles of hot water to the feet, and the purging mixture every hour till it operates freely.

Feb. 1. Better; bowels twice moved; no headach; pulse softer, 110 tongue

white; mouth slightly affected by the mercury. Rep. mist. purg.

2. Much better; bowels freely relieved; pulse 78, full, soft.

6. Has gradually improved since the last report, but is extremely weak. By strict attention to diet, and regulating the bowels, this boy has done very well. It has subsequently been ascertained that he enjoyed good health up to Christmas last, since which time he had lost his spirits, and appeared dull and heavy. He had had a cough, attended with puffiness of the head and throat, drowsiness, and stertorous breathing.

TREATMENT OF RING-WORM.

To the Editor of THE LANCET.

SIR,—As the subject of the ring-worm has occupied your attention pretty largely,—owing to the flagrant abuses which have been tolerated in the medical department of *Christ's Hospital*, to the prevention of the eradication of the disease from the establishment for a number of years,—a few brief remarks from correspondents, stating their most successful modes of treating it, I think would be considered, at this date, worthy of a place in your useful journal, and acceptable to the profession; with this view I transmit my mite; and am, Sir, your obedient and obliged servant,

J. H. HORNE,
Surgeon, &c.

5, Gerrard Street, Soho,
Feb. 16th, 1835.

I find it is an almost universal observation of well-informed and discerning parents, who consult us for their children when affected with porrigo, that in their inquiries for medical relief, the opinions of each practitioner have widely differed from those of his brethren, and the same result, I believe, attends a comparison of authors' works whose "nomenclatures and descriptions" rarely agree, an almost certain proof that the method of cure amongst them is grounded on an uncertainty, and if accomplished, cannot be satisfactorily accounted for.

In attempting to arrange the different facts of this important disease, as they have fallen under my observation, into something like order, and to avoid inconveniences in practice, I have divided them into two kinds, "pustular" or "contagious," and "non-pustular" or non-contagious," subdividing each into two varieties, viz., 1st. *Porrigo-Annulare*;* 2nd. *Porrigo-favosa*;† and 1st. *Porrigo-decalvens*; 2nd. *Porrigo-furfurans*: and since adopting this classification for my guidance, I have seldom found it difficult or hazardous in practice, to offer an opinion on the nature of the disease, or the most likely method of curing it. To this latter desideratum I shall confine my remarks.

The first process usually recommended, is to shave the head, a process which I have long since found to be exceedingly prejudicial, for most writers agree as to the contagious nature of *porrigo annulare* and *favosa*, and in proof of it they cite facts of daily occurrence, where razors used for shaving "scald heads" have been employed in mistake on healthy heads, and have communicated the affection; or where the forgetful barbers have either applied it, after well strapping and washing, to their own chins, or to those of their customers, generally producing the disease, whence fresh inoculations occur on the diseased scalps, serving dreadfully to retard the cure. The irritation which it causes is also a source, at some stages, of immense mischief. I am happy to find, that my views on this part of the treatment are strengthened and confirmed by Messrs. Mahon of Paris (see Rayer's admirable work on Cutaneous Diseases, translated by Dickinson), who *cut* the hair short in preference to *shaving* it, but this must not be done too closely, or the cut ends will keep up the irritation. Their successful epilatory methods of cure are, for the most part, unavailable to practitioners on this side of the Channel. The object of shaving the head is to secure cleanliness, but this can be effected without the risk of keeping up the disease, by thoroughly washing it with warm water and soap; but the hair, neither in washing nor in drying, should be rubbed in a contrary way to its growth: this may seem rather too particular, but if success be sought, the advice must be attended to.

After guarding against the baneful effects of shaving the head, our first attention must be directed to the improvement of the system by medicine and diet; no food is to be allowed which cannot be easily digested, and will not prove nutritious without stimulating the system. At the same time cold water, or cold and warm poultices, will be found to be the best applications to the head; and should it appear on careful examination, that fresh eruptions daily make their appearance, we may rest assured that the disease has not reached its full development, to accomplish which, the tincture of lytta must be administered,

* "Annulare," Plumbe. † "Scutelata," Willan.

prepared with double the quantity of flies ordered by the L. P., so as to produce and keep up slight strangury for one or two weeks, when the whole of the eruption will be driven out. If attempted to be cured before this has been effected, we are compelled to apply irritating applications, when soothing ones are also indicated. The lytta also acts as an excellent tonic, a virtue not generally ascribed to it.

The cure itself can be accomplished either by the following lotion or the ointment:—*Liq. Plumb. Subacetatis, Acet. Distil.*, et *Tinct. Opii*, ana ʒiij; *Mist. Camphoræ* Hj, to be applied freely night and morning, giving every second night a small Plummer's pill, of ij to iv grs., according to the age of the patient; and during the day, small doses of the infusion of gentian and senna, with ammonia or soda. Should the lotion not completely succeed, I use a small portion, night and morning, of the following ointment:—℞ *Ung. Hyd. Nitrat.* ℥j, prepared as recommended by Dr. Thomson, with only one sixth quantity of the lard. (See *Lond. Disp.*, 4th edit., page 980); *Sulph. Sublimat.* ʒj; *Camphoræ* ʒss. M. The more obstinate the cure, the larger the quantity of the ointment that must be effectually, but cautiously, rubbed in at each dressing. No rags or towels to be used a second time without thorough cleansing; the inside of the caps to consist of oilskin, which admits of being washed and changed daily without much trouble, the same material being used for the head to be laid on at night.

The treatment of the chronic form requires a little patience, both from the friends and the medical attendants, who must on no account suffer any irregularities of the constitution to exist, or no remedies will succeed. The injunctions demanded in the acute stages are equally required in this; and as the applications must be highly stimulating, after cleansing the head I use the following embrocation in lieu of the lotion:—℞. *Sp. Ammoniæ Comp.* ʒ xij; *Tinct. Opii* ʒ iv, * to be used every night according to its stimulating effect, and the ointment on the following morning as above given, or equal parts occasionally of sulphur and tar ointment. A perfect eradication of the disease may be anticipated in a few weeks from this treatment. No case that I can find in looking over my notes has baffled my efforts so long as three months, though many of these had been tortured previously by the razor and every kind of treatment that could be devised for many months. Practitioners who have been thwarted in their attempts to effect a cure, will say that private practitioners' cases are, for the most part, isolated ones, and hence more readily yield to treatment. This I acknowledge, but the majority of *mine* have been either in boarding or parish schools of this metropolis, or from distant villages, where the greater part of the children of the neighbourhood have been affected.

Porrigo Decalvans and Porrigo Furfurans require the same care with respect to the constitutional treatment, which will, I think, be found to constitute the chief point of attention, for it is utterly impossible either to restore the hair in the former, or to get rid of the furfuraceous secretion in the latter, unless the system be restored to a healthy state; indeed the skin of the whole body should become soft, pliant, and moist, by the treatment, and until that has been effected by remedies adapted to the peculiar diathesis, a cure must not be expected. Not unfrequently a scrofulous taint exists, but of this I cannot now speak. In either case, while the system is being regulated, the heads must be kept clean, and any inflammation reduced by cold or hot poultices, or simply by cold water.

To restore the hair, I order to be rubbed over the head, night and morning, a small quantity of Spiritus Camphoræ, or brandy, which answers admirably. To get rid of the furfuraceous secretion, I apply to the head, night and morning, the following lotion: ℞. *Acet. Distillat.* ʒiv; *Aquæ Rosæ* ʒ xij; M.; fiat lotio, the strength of which can be increased at pleasure as required, and which must be used until the head is clean and healthy: a portion of almond oil occasionally proves of service.

* My friend Mr. Henderson, of Maddox-street, who has been exceedingly successful for some years in curing this disease, uses the Tinct. Opii Ammoniata, *Ph. Edin.*

REMEDY FOR RING-WORM.

To the Editor of THE LANCET.

SIR,—With this I should not have troubled you, had I not been convinced by Mr. Plumbe's letter of the 21st ult. that the application which I am going to recommend as an effectual remedy for the ring-worm, is less generally known than it deserves to be; it is simply a lotion composed of the "liver of sulphur" of the shops, and water, in the proportion of half a drachm or more of the former to one ounce of the latter. This is to be applied twice or thrice a day, the diseased parts, previous to each application, being well washed with soap and warm water. I

have been informed that "gas-water" is frequently and successfully employed for the same purpose. If so, we may attribute the result to the sulphuretted hydrogen which it contains, combined with lime, or merely held in solution.

As it is admitted that to prevent is better than to cure, I trust that the knowledge of a cure for ring-worm will form no bar to the introduction, by the almoners, of such changes in the dress and diet of the boys of *Christ's Hospital*, as may be deemed necessary for its prevention by a competent medical committee. Although foreign to my subject, permit me here to express a hope, that any alteration in the dress of the boys, hereafter made, will not be limited to the cap, but include the whole uniform, and that a more becoming dress, one, consequently, of which neither gown nor petticoat can form a part, will be substituted. I foresee the senseless outcry that will be raised by the "lovers of the antique," whenever this innovation is seriously proposed. Of course all who advocate the measure will be accused of the "blackest ingratitude" towards the Royal founder. My defence will be comprised in the following question, to be put to these sensitive gentlemen individually, "Should you, Sir, if possessed of a large estate, bequeathed by your great-grandfather, deem it absolutely necessary to wear his triangular hat, scarlet coat, and silver buckles, in order to evince your gratitude for the original testator? If your answer be in the negative, you must no longer contend that the Governors of *Christ's Hospital* are bound, as long as the institution exists, to clothe boys in the costume of *the earlier part of the sixteenth century*, as with them the motives for gratitude are fewer, and the dress is less becoming, than in the case which I have supposed to be your own."

I am, Sir,
Your most obedient servant,
A BLUE.

Scabies, *Anglice* "the itch," is said to be caused by the presence of a very minute insect, discoverable only by the aid of a powerful lens. May we not, therefore, assume, as probable, the existence of a similar cause for the production of a disease resembling the former in more respects than one? Both are cured by the application of an agent which is extremely destructive to animal life, viz. sulphuretted hydrogen.

R. H. CRISP, Surgeon.

Peterborough, March 2, 1835.

EMPLOYMENT OF

SULPHUR IN RHEUMATISM.

To the Editor of THE LANCET.

SIR,—Since the age of fourteen years, I have been occasionally subject to attacks of rheumatism, either acute or chronic, for which I have applied all the usual remedies with various success. In the autumn of last year, the muscles and bone of my right leg became affected, and then the left, to such a degree that I scarcely ever slept above two hours during the night, and the irritation was so constant, day and night, that I lost flesh very fast. I tried Plummer's pill, with compound decoction of sarsaparilla, and colchicum with magnesia, with little benefit, and the appetite being good, and the secretions healthy, I was unwilling to take any more medicine internally.

From a very general report that sulphur is advantageous in rheumatic affections (many of the poorer class of people carry a piece of "stone brimstone" in the pocket as a charm against that complaint), I was induced to test the merits of the remedy, and from the benefit which I have myself derived, and the relief I have afforded to others, I am inclined to think that sulphur is as much a specific for rheumatism as mercury is for syphilis. I had been suffering all day most acutely, and on going to bed I put some powdered sulphur in the palm of my hand, and rubbed it on my legs, drawing on my stocking to keep it applied. In five minutes I experienced great relief, went to sleep almost immediately, and suffered no more from that most tormenting malady. I do not venture to explain the *modus operandi*, but merely vouch for the fact. A strong easterly wind set in next day, but, notwithstanding I was exposed for some hours, I had no return of pain, and the limbs had regained that proper sensation of warmth of which they had been deprived.

During the continuance of the affection, a baker who had been engaged during the early part of the morning in his business, left his bakehouse to go to Gravesend in the steam-boat, and having been exposed all day to a blowing wind, came home, and was laid up next morning with a severe attack of acute rheumatism, affecting all the joints. I bled him, put him into a warm-bath, administered calomel and opium to slight salivation, afterwards compound decoction of sarsaparilla, and decoction of guaiacum, with colchicum; but still he was in too much pain to follow his

employment. I then desired him to take a teaspoonful of sulphur twice a day, and to rub dry sulphur on his skin. He was soon freed from his misery, nor has he had any return of pain, though six months have now elapsed.

I was talking a few days ago to a seafaring man, who assured me that he had cured himself of severe rheumatic pains by putting powdered sulphur in his boots, and that he had not suffered after, although the weather had been very wet and tempestuous in a long voyage.

A lady has assured me, that after excruciating sufferings during two years, having had the best advice she could procure, she cured herself by taking sulphur in gin. This lady's fingers were contracted, but she has perfectly recovered the use of them.

An old blacksmith of Farnborough has repeatedly told me that by sulphur boiled in water, and drunk fasting, he has cured people of rheumatism after the doctors had pronounced them incurable. I have seen many girls of the town, who, from their mode of life and the frequency of their taking mercurial medicines, are especially subject to rheumatic affections, who have been almost immediately relieved by sulphur. It is best, I have found, to administer it internally, as well as apply it externally, after bleeding and purging, in acute rheumatism; but in chronic, the mere external application will be frequently sufficient.
I remain, sir, your very obedient servant,

GEORGE TUCKER.

18, Park-place, Kennington Cross,
March 2, 1835.

P.S. I beg leave to thank a Correspondent in THE LANCET for his communication respecting the use of the *Liquor Ammon. Acet.* for warts on the penis, labia, and skin. The application is attended with no pain or irritation, and is most efficient, superseding every other remedy.

POSTERIOR

DISLOCATION OF THE TIBIA,

AT THE KNEE-JOINT.

To the Editor of THE LANCET.

SIR,—As the subjoined extract from a letter which I have just received from my father may prove instructive or interesting to your readers, the case being an uncommon one, perhaps you will give it insertion in your periodical. I am, Sir, your obedient servant,

W. S. SWEETING.

London University, March 2, 1835.

"The son of Mrs. M., about thirteen years of age, was in the stable amusing himself with rubbing down one of the horses. The left leg was a little extended, and the whole weight of the body was thrown on the right, in which position one of the horses suddenly kicked, and struck him just below the knee-joint, on the tuberosity of the tibia. He fell, and was immediately carried into the house by the carter, who was present. The disfigurement of the limb led to the supposition that the thigh had been fractured, whereon a messenger was dispatched for me. On arriving at the house I found the lad in bed, lying on his back, the knee bent, with the foot and ankle turned outwards. The condyles of the os femoris were prominent, the patella lying externally to the outer condyle. The knee-joint was exceedingly swollen; the swelling also extended along the thigh. Flexion of the limb gave him no pain, but on extending it he complained. The injured limb was from an inch to an inch and a half shorter than the other. The head of the tibia could be distinctly felt occupying the popliteal space. The tuberosity of the tibia had disappeared.

"I was convinced of the nature of the accident, and proceeded to reduce the dislocation, which, by the aid of two powerful persons, was effected, although its accomplishment required considerable force. The limb was laid on a double-inclined plane, at an angle of about fifty degrees. On the following morning I found that he had passed a very restless night, had thrown about the limb in all directions, and had displaced the parts which I had previously brought into apposition. I attempted again to reduce the dislocation by the aid of the persons employed on the preceding evening, but finding my efforts vain, I determined on having recourse to the pulleys. Mr. Southcombe came to my assistance, and was fully convinced of the completeness of the dislocation.

"A bandage of web was passed between the thighs and fastened to a rope at the upper end of the bed, for the purpose of fixing the pelvis, and a wetted towel was bound round the middle of the thigh, to enable an assistant the more firmly to grasp it in making a counter-extension. Another wetted cloth was passed round the ankle, and the web circular bandage was fastened over it, to the rings whereof the hook connected with the pulleys was fixed. After some trouble and continued extension of the limb by the pulleys, for about the space of ten minutes, we succeeded in reducing the dislocation. The whole procedure was exceedingly interesting, and not so very painful to the patient as might be imagined. The case

was new to us, and I cannot describe the satisfaction which Mr. Southcombe and myself felt when the head of the tibia was brought down, and the tuberosity of the tibia appeared. After the reduction the limb was placed on a double-inclined plane, and confined to the apparatus by bandages round the ankle and above and below the knee, leaving that joint free from pressure, and a large surface for the application of evaporating lotions. A person sat by the lad day and night, supporting the limb, lest, by reason of spasm, it should be thrown out of its proper position."

RECOVERY FROM POISONING

WITH TWO DRACHMS OF

ARSENIC.

To the Editor of THE LANCET.

SIR,—I beg to forward the underwritten case for insertion in your valuable journal.

I am, Sir, your obedient servant,

JOHN GREENING,

Surgeon to the Worcester Dispensary.

Bridge-street, Worcester, Feb. 21, 1835.

January 27, 1833. About seven o'clock this evening I was requested to visit Mrs. T—, residing at Angel-row in this city, a widow, 38 years of age, of sanguine melancholic temperament, who had taken, in toast and water, a quantity of arsenic. I found her in bed, her head supported, and the saliva flowing copiously from her mouth. She had also vomited nearly a chamber-pot full of fluid. The face was swollen, flushed, and covered with cold sweat; pulse 120, feeble and irregular; and the breathing was very difficult. In consequence of a quarrel with her daughter she had gone to a chemist's, and purchased, as the shopman says, two drachms, and drunk it in fluid, no other person being in the house at the time.

I immediately administered large quantities of soap and water, and after obtaining a stomach-pump from the Infirmary, I washed the stomach well out with the same mixture, which was put by for future inspection. There was evidently a spasmodic contraction of the œsophagus; the retching and vomiting had nearly approached to convulsions. Upon asking her several times if she had taken all that was bought, she said "yes."

At nine o'clock she was more sensible, and complained of excruciating pains and burning sensation in the throat and stomach. The soap and water was persisted with.—Ten o'clock; still severe pain over the abdomen, which is much swollen; the vomiting continues. She was left for the night under the care of a proper person. Magnesia in milk for her drink.

Monday, seven a.m. More composed, but says she shall die. Vomiting throughout the night; pulse 95, small; great thirst; bowels have been moved four times, with excruciating pain and tenderness in the epigastric region. Mitt. sang. ad ℥x. Sumat Opii gr. ij tertia quaq. hora. Emp. lyttæ ampl. scrob. cordis, and to continue the magnesia and milk.

One o'clock. She feels somewhat easier. Mitt. sanguis ad ℥viij. Injice illico per anum clysma purgans.

Ten o'clock p.m. Bowels open; less pain; animal spirits much depressed; vomiting continues; pulse 98; blood buffed; thirst. Take two drachms of *Carbon. of Magnesia in Decoct. Hordei* 4ta quaque hora.

29. Tuesday, nine o'clock. Some sleep; burning pain of the throat and stomach still continues; still vomiting; the two first doses of medicine remained in the stomach for half an hour; the blister rose well. Rep. clysma., V.sectio ad ℥x, et pilul. Opii.

Feb. 1. Up to this time she had gone on well; has not vomited since four o'clock yesterday afternoon; complains of great pain in the bowels and great thirst. Rep. Emp. Lyttæ, et mistura.

2. Vomiting has ceased; bowels open; a large quantity of mucus was mixed with the feces; pulse 108, soft and quick. From this time up to 20th nothing particular occurred; and on the 23rd she was perfectly recovered.

Remarks.

M. Orfila has thrown no additional light on that obscure but interesting question, how arsenic induces death. He still classes arsenic among the corrosive poisons; yet it is well ascertained, that it is not by the inflammation and erosion which it excites that it kills. Indeed these effects are only consecutive, for when the mineral is given in large doses, death often takes places before symptoms of gastric inflammation have had time to supervene. Besides, when arsenical solution is applied to a wound, death is produced with much more certainty, though the local irritation of the living fibre is comparatively trifling. There can, therefore, be no doubt that in the majority of cases, arsenic makes its way into the circulation ere it terminates life (the same holds true in poisoning from the bite of a rattle-snake and other venomous serpents), by destroying the vitality of the blood, and rendering it incapable of supporting the irritability of the heart, and

the excitability of the brain and spinal chord.

The ammoniacal sulphate of copper added to the first fluid vomited in the above case produced a grass-green precipitate. Arsenic was also found at the bottom of the vessel, which, streaked on writing-paper, when a stick of lunar caustic was drawn several times over the moistened part, became yellow. The streak was rough, curdy, and flocculent.

ACCOUNT OF A

CONTAGIOUS EPIDEMIC PUERPERAL FEVER

WHICH PREVAILED

IN AYLESBURY,

AND ITS VICINITY, IN THE AUTUMN OF 1831.

By ROBERT CEELY, *Esq., Surgeon to the Buckinghamshire Infirmary, Aylesbury.*

THE disease about to be described appeared in three distinct forms, which, for practical purposes, may be denominated—

I. The acute inflammatory (synochoid?).
II. The low typhoid (acute?).
III. The insidious (synochoid?).

1. *The Acute Inflammatory Form.*

This occurred chiefly in the young and robust, confined with the first child, and was characterized by the following

Symptoms.—On the second or third day, not unfrequently a very few hours after delivery, rigors, occasionally slight, generally severe, succeeded by fever and quick pulse; acute pain in the hypogastrium, back, and loins, radiating to one or both groins, and suddenly extending to the epigastrium; sickness, retching, and eructations; constipation of the bowels; lochia diminished and depraved; painful micturition, more commonly complete retention of urine. The uterus very voluminous, often extending into the umbilical region, exquisitely tender. The whole abdomen soon became tumid, more or less tympanitic, and very tender. The vagina and os uteri very hot, and highly sensitive to the slightest touch.

The pulse was rapid, seldom less than 120; at first rather small and contracted, firm but compressible, sometimes full and soft; skin sometimes hot and dry, not unfrequently perspiring; intense thirst; tongue either white and moist, or rather dry and brown; countenance alternately flushed and pale, anxious and dejected; expressive of severe suffering and deep distress; voice and manner gentle and subdued.

The posture of the patient was generally inclined to one side, the head and shoulders somewhat elevated; the body gently bent forward, and the thighs slightly flexed on the pelvis.

As the disease advanced, the ratio became short and anxious; the unremitting pain of the hypogastrium and abdomen increased; the vomiting and borborygmi were very distressing, and excited by every bodily movement, or the introduction of liquids into the stomach; the urine became altogether suppressed; breasts flaccid; lochia either completely extinguished or very scanty and highly vitiated, or fetid; the uterus more voluminous, and the abdomen more tympanitic; invincible constipation; *erysipelas of the vagina and pudenda;* pulse 140 to 160, fuller, firmer, *but not hard,* though bounding; heat of skin and thirst increased; tongue drier and more loaded; countenance more anxious and distressed; features sharper; intolerance of the least movement, or the slightest pressure on any part of the abdomen, till the fourth, fifth, or sixth day, when symptoms of rapid sinking of the powers ensued, and speedily terminated the patient's sufferings, the head being clear to the last.

In two cases, in the course of the disease, I noticed a tense, colourless, painful swelling, apparently under the fascia covering the carpus of the right hand.

Treatment.—The treatment consisted in early and liberal, general and local bloodletting, large and frequently repeated doses of calomel and opium. From ten to twenty grains of the former, and from one to two, or more, of the latter every two or three hours, *so as quickly and indisputably to affect the gums,* and restore the functions of the abdominal and pelvic viscera; cold evaporating lotions constantly applied to the abdomen, loins, and vulva; and low diet.

2.—*The low Typhoid Form.*

Symptoms.—This form generally commenced on the first, second, or third day, after delivery, with severe rigors, excessive languor, and extreme prostration, with pallid, sunken, anxious, and dejected countenance; lividity of the lips and tongue; pulse rapid, 120 to 130, or more; small, weak, and oppressed; temperature of the skin seldom, at first, much raised, generally moist; hypogastric or uterine tumour very voluminous and extremely tender, often occupying the umbilical region; notable abdominal tympany, and

general tenderness, but not so much as in the hypogastric region; vomiting; eructations; pain in the back and loins; retention or suppression of urine; lochia sensibly depraved and nearly suppressed; bowels constipated; vagina and os uteri hot, and very tender to the touch. The general and pathognomic symptoms of the preceding forms, but in a more exalted degree, indicating an entire abolition of the functions of the abdominal and pelvic viscera, accompanied, however, by an overwhelming languor and prostration. The symptoms rapidly advanced; erysipelas soon became visible on the pudenda; milk, urine, and lochia, totally suppressed; sickness and retching almost incessant, especially on motion or swallowing; *invincible* constipation. For a few hours, on the second day, the pulse would rise, and acquire more volume and greater strength, but this was of short duration; it again became weak and more rapid, 140 to 160, or more. The uterus became enormously voluminous; considerable tympany and increase of tenderness of the abdomen; quick, short breathing; cold clammy sweats; rapid sinking, with the mind calm and collected, anticipating the approaching event, which took place on the second or third day of the disease. In one case I observed a colourless painful swelling over the right carpus.

Treatment.—Blood-letting (general) was generally impracticable, always highly pernicious; local depletion utterly unavailing. Nothing but the production of rapid and decided ptyalism afforded the slightest chance for the unfortunate patient. Not less than twenty grains of calomel, and two, three, and, occasionally, four grains of opium, every two or three hours, according to the severity of the symptoms, could be safely confided in; and even these doses, in many cases, if not commenced at the moment of attack, and sometimes even *by anticipation*, were inadequate to the intended effect.

Cold evaporating lotions to the abdomen, loins, and vulva, were grateful to the patient, alleviated pain, and repressed the tympany.

3.—*The Insidious Form.*

This division comprises the more deliberate approach of the two preceding forms, and was observed to arise from the first to the thirtieth day after delivery; commonly about the third day.

The Symptoms of course varied in degree and character, as the case happened to be mild or otherwise, as tending to the production of one or other of the above-mentioned forms.

Chills, either slight or altogether absent; more or less pain and tenderness of the hypogastric region, sometimes remittent; uterus *slightly* tumid, and always more or less painful to the touch; abdomen impatient of pressure; slight tympany in women who had borne several children; anorexia, nausea; faintness, languor; pale dejected countenance; constipation; painful micturition; milk and lochia more or less diminished; thirst; pulse from 85 to 90, either small, weak, and oppressed, or full, soft, and compressible. Turning in bed painful, and done with caution, and some distortion of the features; the relaxed posture preferred. Often no material alteration would occur for several hours, perhaps a day or two, when, suddenly, a severe rigor would usher in one or other of the above forms of the puerperal disease.

The Treatment consisted, in the milder cases, in administering without delay ten grains of calomel, followed in an hour or two with a dose of castor oil or sulphate of magnesia; both of which were repeated in three hours, if the *characteristic constipation* were not freely relieved. Fomentations and poultices to the abdomen and vulva were also used, and a cautious diet was enjoined. If the symptoms were with difficulty relieved, or speedily returned, or the weak pulse was accelerated to 95 or 100, or the intestinal secretions were much depraved, which most commonly was the case; calomel and opium, in the doses of five to ten grains of the former, and one to two of the latter, were repeated every three, four, or six hours, till the gums were tender, and the secretions restored. If the pulse acquired force with frequency, a full bleeding was at once instituted, and the mercurial action accelerated.

Post-mortem Appearances.

I regret that circumstances, over which I had no control, precluded my instituting an inspection, after death, of the acute inflammatory cases; the following account of the autopsy in two cases of the *Low Typhoid form* will be interesting:—

A highly narcotic and sickly woman, aged 45, who had been attacked, on the third day after an ordinary labour of the fourth child, with the low typhoid form, with incessant and very severe pain in the hypogastric region especially, as well as with all the pathognomic symptoms in an exquisite degree; and who from this cause, as well as an unfortunate delay in the application for assistance, perished on the third day of the disease.

The uterus appeared more than twice the healthy size at a corresponding period after delivery. Its peritoneal covering, as

well as that of the fallopian tubes, as far as the fimbriated margin, exhibited numerous vessels copiously injected, and of a dark vermilion colour. At this extremity of each tube the mucous membrane was highly injected, and of a dark mahogany colour, covered with a dark grumous mucus; on slitting up the fallopian tubes to their origin in the angles of the uterus, the same appearance was visible throughout; the *mucous* membrane of the uterus was in precisely the same state. The substance of the uterus was perfectly healthy. A few streaks of vermilion vessels appeared on the ovaries. On the right side, a portion of the ilium near the fallopian tube, the cæcum, the ascending, transverse, descending, and sigmoid colon, and the upper part of the rectum contiguous to the fallopian tubes, in patches, presented the same inflamed appearance. The great omentum was in the like condition; the injected vessels were few, large, and of a dark vermilion. On reflecting this, the subjacent small intestines were similarly inflamed, but not to a great extent. Not the slightest trace *anywhere* of adhesion, or of the presence of coagulable lymph. About a pint and a half of a whey-like fluid in the cavity of the pelvis and abdomen. The peritoneum everywhere else was healthy.

In the second case of the same form, occurring in a weak, unhealthy, strumous woman, the mother of several children, on the *thirtieth day* after delivery, and terminating on the third day of the disease, the uterus was not larger than is usual at such a period, nor was its peritoneal covering inflamed; but all the appearances above enumerated, though generally in a slighter degree, were essentially the same.

General Observations.

This epidemic and contagious puerperal disease appeared early in October 1831, during the prevalence of an epidemic and contagious erysipelas. The erysipelas appeared in a mild, a phlegmonoid, and a low typhoid form, with the usual characteristic and pathognomic symptoms. The parts affected with the erysipelatous inflammation were generally the tonsils, uvula, and fauces; but such was the erysipelatous tendency, that wounds of all kinds, contusions, simple abrasions, and common attritions of the cuticle, seemed to ensure to an individual exposed to the epidemic or contagious cause, an attack of one or other of the three forms. A common catarrhal exposure, at this period, was sure to lead to erysipelas of the fauces &c., and the occurrence of one such case in a house, in a very short time led to a communication of the disease, in its several varieties, to most of the nurses and attendants. Its contagiousness was as palpable to us as that of the small-pox.

Although the majority of the cases terminated favourably, after a longer or shorter duration, yet a few, generally emanating from contagion, and having other localities of the erysipelas instead of, or in addition to, the tonsils &c., were attended with all the topical and general symptoms of poisoned wounds, and speedily terminated unfavourably.

Many of the cases which ultimately recovered, were tediously and painfully protracted; for, instead of the topical affection of the throat subsiding within a week, with a diminution of the fever, this still continued; the erysipelas gradually made progress along the floor of the nurses, and soon appeared on the face, spreading over the head, extending often to the back, chest, loins, and nates; giving rise to the necessity of evacuating several large purulent depôts under the fasciæ of the parts affected; and leaving the patients in a deplorable state of debility. The disease continued to prevail for nine months, during which time it extended, principally by contagion, to the adjoining villages; and was frequently seen to originate in those places from a case of the puerperal disease. That the two diseases had a common origin; that the puerperal disease and the prevailing erysipelas were identical, and each capable of producing the other, was soon beyond a doubt,—every puerperal case giving rise to numerous cases of the common epidemic, in the persons of the nurse and attendants. The puerperal disease then was esteemed a mode of the prevailing contagious epidemic:—it was erysipelas of the mucous membrane of the vagina and uterus, extending into the abdomen through the fallopian tubes, and from them, by contiguity and continuity of surface, to the parts above described.

Persons of all ages and both sexes were alike obnoxious to the evil influence of the general epidemic; and few exposed to the operation of the contagion in its common or puerperal form, could withstand its power beyond seven or eight days, seldom so long.

The Puerperal disease.—The period of invasion, though generally on the second or third day, I thought, in some instances, coeval with the parturient process. The more severe and protracted the labour, the greater probability—nay, the certainty—of an early and severe attack.

The tumid and tender uterus, with a rapid pulse, were infallible signs of the existence of this formidable disease, and their degree and extent the measure of danger.

The occasional retention of urine, or its constant total suppression, with the invariable constipation, dissipated all possible doubt, and at once pointed out the extension of disease. The countenance, voice, posture, and manner of the patient, so striking and so truly pathognomic, agreed in every particular with the graphic delinations of Dr. Marshall Hall;* every puerperal case giving rise to numerous cases of the common epidemic in the persons of the nurse and attendants.

Treatment of the Acute Inflammatory Form.

The lapse of twelve hours before the use of remedies in this form of the disease was a serious evil. V.S. was even then well borne, but was not of ultimate benefit, because ptyalism could not be induced, nor could any action on the kidneys or bowels be effected. The blood was always buffed and cupped. The pulse rose after bleeding, and from 50 to 80 ounces were abstracted, but to no good purpose, unless the system was simultaneously, and within three days, fully under the mercurial influence.

In a healthy young woman aged twenty, confined with her first child, in whom the puerperal attack appeared on the third day after delivery, within six hours, 22 ounces of blood were taken from the arm, and twelve leeches applied to the abdomen, and a scruple of calomel in gruel was given every three hours.

Eleven hours afterwards being much relieved, but the symptoms not sufficiently abated, twelve ounces more of blood were taken, and twelve more leeches applied to the abdomen, and the same dose of calomel was repeated at the same intervals, till two drachms had been taken. In 24 hours the mouth was sore, the symptoms all essentially better, all the secretions being re-established, and the patient consequently safe.

At a later period of the attack, however, and under less favourable circumstances in the general health, and *especially where the pain was severe*, it was found absolutely necessary to combine opium in doses of one or two grains with each scruple of calomel, every two or three hours, to ensure an allevination of pain, and accelerate ptyalism, blood-letting still being used according to the strength of the pulse. In two cases, at the commencement of the epidemic, blood-letting, very early and copiously and locally used, with scruple doses of calomel and saline purgatives, administered, so as to keep up a constant catharsis, by preventing the mercurial action on the system, failed to avert a fatal issue. In these cases not less than three and four drachms of calomel had been taken without the slightest influence on the gums, and, consequently, I had the extreme pain and mortification to lose what future experience taught me ought to have been saved.

In general there was no need of any assistant purgatives; in fact, they were clearly pernicious. The large doses of calomel, even with one or two grains of opium, gave two and three evacuations in 24 hours, increased the deficient urine to a copious flow of dark liquid, like a strong infusion of black tea, and, with the affection of the gums, speedily restored the impaired or suspended functions of the pelvic and abdominal viscera.

Treatment of the Low Typhoid Form.

This form occurred for the most part in the weakly and neurotic who had previously borne children.

In the treatment of this form the delay of four or five hours in combating the symptoms was surely fatal. The excessive languor and extreme prostration, and the early advent of sinking, rendered the production of ptyalism too frequently impracticable. Indeed the only mode that could be safely depended upon was,—in all case; where an attack seemed probable from the nature of the labour, or the constitution and circumstances of the individual,—as soon as possible, even during the progress of, or, at latest, contemporaneous with, the completion of labour, to commence with ten or twenty grains of calomel, and one or two grains of opium, every three or four hours, according to the probabilities of the case; so that the mouth might be affected in time to avert a fatal event.

The following case I am persuaded was saved only by this mode of proceeding; and even here it will not fail to appear very remarkable, that so much calomel could be taken before the gums were even tender:—

Case.—A corpulent, florid, masculine, hard-working woman, the mother of several children, who, according to custom, had suffered severely for three days and nights in tedious labour, during which time she had taken calomel and opium largely, at intervals, according to the pain, in addition to strong mercurial cathartics, and ℈i *Hydr. Submur.*, and three grains of *Opium*, three successive nights, with great relief, was, on the 8th of March 1832 in the afternoon, delivered of a large child. I expected a ferocious attack of the puerperal disease. *Immediately after delivery*, therefore, I ordered a powder of

* See "Elements of Diagnosis," &c. In this and in all his works, so distinguished for perspicacity, fidelity, and precision, I have inserted a motto—"*Indocti discant; ament meminisse periti.*"

℈i *Hydr. Submuriat.*, and gr. iv *Pulv. Opii*, which was repeated at bed-time. *During the night*, at intervals of three hours, ten grains of *Hydrary. Submur.* and two grains of *Opium* were taken, and ℥ x *Tr. Opii*, inter singul. pulv., si alvus persoluta sit.

9th, eleven a.m. Slight rigors; distressing languor and lassitude; hot skin; thirst; pulse 125, small, oppressed; lochia diminished, pale, fetid; hypogastric and umbilical region tender and tumid; uterus painful and voluminous, twice the size it was yesterday; flatulence; nausea; urine deficient; dysuria; countenance anxious and distressed; augmented by the attempt to turn in bed. Ordered cold evaporating lotions to the abdomen, back, and vulva, and *Hydrary. Submur.* ℈i; *Pulv. Opii* gr. iij; 3tis horis.

Post meridiem. Pulse 118, rather fuller; has had three dark and offensive stools.

Ten o'clock at night. Pulse 110; easier; less tympany; three offensive stools; urine rather increased, dark green; scarcely any sleep; pain in hypogastric, iliac, and lumbar regions, abated. Ordered gruel and broth. Continue the powder 3tis horis, and tinct. opii, ℥ x, inter sing. pulv., si persoluta sit alvus.

10th, nine a.m. Had a little sleep at brief intervals; pain abated; skin cooler; perspiration; thirst gone; pulse 96, fuller, soft; countenance calm; has had two dark offensive motions; urine copious, dark-green; lochia more abundant and rather florid; expresses herself not only greatly relieved by the cold applications, both from pain and tympany, but fancies the lochia are increased as often as the cloths are renewed. Abdomen softer; uterus more contracted. Continue broth, &c. Persist in usu pulverum ut antea.

Meridie. Passed *three pints of dark-green* urine, not coagulable by heat; pulse 104, fuller, but soft.

Vespere. Pulse 102; abdomen rather more tympanitic; urine frequently and copiously voided with ease; general abatement of pain. Haust. Rhei s. s. Repet. pulveres ut antea, inter noctem.

11th, a.m. Bowels open three times; motions ameliorated; pulse 103, small; feels weak and faint; *gums tumid*. Ordered coch. ampl. vin. albi, and applied the abdominal bandage with much relief.

Meridie. The head evidently incommoded by the opium; omitted it, and gave ℈j *Hydr. Submur.*, to be assisted by Saline Cath. mixture, 2dâ q. hora donec resp. alv.

Vespere. Pulse 108, fuller; slight hiccup; less tympany; gums more tender and tumid; breasts painful and distended with the milk.

12th. Mouth and gums painful; all the symptoms improved. Took Saline Effervescing medicine, beef tea, &c. &c. Vin. Albi coch. 2 ampl. 3tis horis. From this time, with the assistance of opiates and ol. ricini, with light and nutrient diet, with a small allowance of wine, the recovery was progessive and complete. From the 4th of March to the 11th inclusive, more than seven drachms of calomel had been taken, with correspondingly large doses of opium, before the mouth was really affected.

General blood-letting, *even within the first or second hour* of the attack of the typhoid form, was, by the pulse and general appearance, not likely to be beneficial; and Dr. Marshall Hall's test rendered it impracticable or nearly so; as scarcely more than three or four ounces of thick, pitchy blood could be *squeezed* from an ample opening. Leeches, blisters, and sinapisms, were worse than useless.

In the course of ten or twelve hours, the pulse rose and became fuller; but remained still, soft, and weak; if *then* an attempt at venesection were made in the semi-recumbent posture—the sitting posture being altogether impracticable from the aggravation of pain—eight or ten ounces of a brighter blood often might be with difficulty procured, to the manifest detriment of the patient, and of course the creation of another impediment to the institution of the mercurial action. Nothing but calomel and opium in large and frequently repeated doses, proportioned to the severity and rapidity of the symptoms, could be relied upon. As in the preceding type, so also in this, the catheter was not unfrequently called for at the onset; after this, no urine was secreted, if the cure did not proceed favourably. *Cold applications*, instead of fomentations and poultices, were decidedly beneficial, and preferred by the patients; and when the mouth became sore, the abdominal bandage was of much service.

Treatment of the Insidious Form.

This form being slower in its approach, I need scarcely say, with the exercise of due vigilance on the part of the practitioner (and woe to him who confided in the observations of nurses and attendants), was manageable, and always susceptible of a favourable determination; amply rewarding him for his unremitting attention and anxious solicitude.

The extreme danger of the puerperal disease when fully formed, and the continued prevalence of the contagious erysipelas, induced me at length to administer to every patient whose circumstances and whose labour seemed to justify the expec-

tation of an attack, as soon as delivered, from five to ten grains of calomel with the usual opiates 4tis horis, so as gently to affect the gums by the third day. The duration of the *general* epidemic was nearly three months after I adopted this plan, and not a single case of the *puerperal disease*, of any importance, during that period, occurred; although my intercourse with the erysipelatous disease was undiminished, and the cases of midwifery quite as numerous. This system of prophylaxis, I trust, will not be condemned by those who have had personal experience of the danger and difficulty of managing so formidable a disease in country practice.

Aylesbury, Nov. 14, 1834.

DRS. HUTCHINSON AND DAVIDSON.

To the Editor of THE LANCET.

SIR,—In noticing Dr. Davidson's letter of Feb. 21st, I shall confine myself to a brief narrative of facts.

Upon the publication of the case of Thomas Moss in THE LANCET, Dr. Davidson, without any previous intimation to me, made a complaint to the Committee of the Hospital, that I had violated one of its laws, by abstracting the treatment of a case under his care from his Case Book, without his sanction: immediately upon hearing this, I requested Dr. D.'s presence before the committee, and gave an explanation, with which Dr. Davidson declared himself perfectly satisfied. This result is recorded upon the minutes of the Weekly Committee's reports. Here I concluded that this affair had terminated, but I was subsequently informed by a medical friend, that Dr. Davidson had circulated in a Book Society to which I do not belong, observations reflecting upon my conduct in the publication of the case; I immediately wrote to Dr. Davidson, requesting and requiring to be informed what these were: I wrote three times, and received none but evasive replies: irritated by which, I addressed the letter to you, which has appeared in THE LANCET.—Dr. Davidson is quite correct in stating that before the Committee I gave my word of honour as a gentleman, that I had told the apprentice, Mr. Creek, to ask Dr. D.'s permission to have a copy of his treatment; this pledge I repeat, and solemnly affirm that I did request this of the apprentice, but it appears that he misunderstood me. I could anticipate no objection from Dr. D. because he knew, as well as I did myself, that it was my intention to publish the case. The copy from Dr. D.'s book, which the young man sent down to my house, I transmitted to a medical friend in London, on the loose sheet upon which it was written, with my remarks upon the case, requesting him to read them before a society to which we reciprocally belong, if he thought proper, and then to send a fair copy for publication in THE LANCET. So persuaded was I that this report had received Dr. Davidson's supervision, that I did not examine it; and suppose that the errors which Dr. D. complains of must have thus arisen.*

My motive in publishing the case, was to draw the attention of the profession to an alteration in the blood, which had also been observed in other cases of diabetes mellitus; but which had not been sufficiently insisted upon, and which very probably has been present more frequently than it has been noticed. The unworthy motives which Dr. Davidson has attributed to me I utterly disclaim, and can assure him, that as far as I am concerned, they have no existence excepting in the pruriency of his own charitable imagination. I preferred Dr. D.'s reports to my own, because when the patient was under my care, the nature of his disease was very equivocal; a considerable period elapsed before he entered the Hospital under Dr. Davidson. Diabetes mellitus was then clearly established, and I considered it desirable that the treatment should be given, up to the period of the poor man's death.

The vulgar personalities and inventions in which Dr. Davidson has indulged, excite no other feelings in my mind, than those of pity and contempt: I have considered the above explanation as due to the readers of THE LANCET, and to myself, and I have the honour to remain your very obedient servant,

R. HUTCHINSON.

Nottingham, Feb. 25, 1835.

March 2nd.—The last virulent attack which Dr. Davidson has considered it to be consistent with his character to make upon me (published since my letter of the 25th February was sent to the Editor) is totally unworthy of consideration. It bears with it its own refutation, and its utter imbecility is its own best antidote.

R. H

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* Viz.—"*Mist. Croton. Co.*," for *Mist. Cretæ Comp.*; and "*Acid. Hydrocyan.* ℥j, pro dos," for *Acid. Hydrocyan. gtt.* i.—What reader of THE LANCET could be misled by such errata as these?

MEDICAL SKETCHES, 1834.

ROUEN.

By J. EDWARD O'REILLY, *M. B., Trinity College, Dublin, M. R. C. S. L., &c.*

THE English physician who travels for the purpose of increasing his knowledge of the means by which health is to be preserved, and deviations from it are to be rectified, must be struck on surveying the capital of ancient Neustria, with the provision made at the public expense for the out-door amusements and recreations of all classes of the people; and he must entertain a feeling of regret that in his own country the poor on festival days have no other resort afforded to them than the soul-and-body destroying gin-shops. A recommendation that public gardens should be provided in our larger towns, stands embodied in the report presented to the Commons House of Parliament, towards the conclusion of last Session, by Mr. Buckingham's committee; should it be complied with, the health and morals of the English people would be greatly improved.

Rouen, with, in a great degree, old, narrow, and crooked streets, a great number of its houses being of wood, possesses a finer and a healthier population than any manufacturing town that I have ever seen, and very little indeed of squalid poverty. This I much attribute to the temperance of the inhabitants, for its local situation is not more favourable to health than our Birmingham or Manchester. For though the environs of Rouen are as healthful as those of any city in the world, a great part of the town itself lies very low, along the banks of the Seine. M. Flobert, the first medical man in Rouen, and perhaps the equal of any in France, told me that he considered the climate of Normandy to be just the same as that of England; nevertheless her capital possesses a very moist one; and from the frequent rains there, is often called the "pot de chambre" of the province. The mists, however, are combatted by currents of air from the surrounding hills, and the higher parts of the city, near to the venerable church of Saint Patrice, are much dryer than the rest of the town. The winds from the west and north are those which most frequently prevail; the first is called "Vent d'aval," and is moist; the north-east, "Vent d'amont," is cold and dry.

The inundations of the Seine tend to produce agues, typhus fevers, and rheumatisms; which tendency is increased by the great variability of the climate. I have heard well-informed persons allege, that the inhabitants of this city are particularly liable to a decay of the teeth, and they attribute it to some deleterious quality of the water, but this cause I much doubt. There are thirty-eight public fountains, and the water of those which I examined was excellent. The number of reservoirs of pure water caused by these fountains, at all seasons, in my mind is a great preventive against the occurrence of hydrophobia in dogs; and I could wish for our own sakes, as well as that of our canine friends, that equal facilities were afforded in the cities of Great Britain.*

The hospitals of Rouen are very fine. The *Hotel Dieu* is one of the noblest in Europe. It is situated at a short distance from the town, and contains fifteen wards, in which are six hundred and eleven beds. Part of it is appropriated to the military, and there are two wards for lying-in women. It also contains an amphitheatre for lectures, and dissecting-rooms. The school of medicine here is termed "Secondaire," and does not confer degrees. Water is conveyed through the entire of the *Hotel Dieu*, by an admirably constructed hydraulic machine, made by Feiny, the inscription on which I must transcribe:—

"Hic dispensat aquas, ægris sanisque salubres
Nympha latens; lateant sic tua dona, monet."

M. Flobert is the chief of this hospital. Whilst there I followed his practice, and experienced from him, and from every one connected with the hospital, that politeness which in France is uniformly shown to us by our professional brethren there. The practice resembles so much that of the Parisian hospitals, of which THE LANCET has given, *me teste*, such accurate reports, that I forbear to transcribe any cases. Union by the first intention is not attempted in all the cases that it ought to be. The actual cautery I saw often used with great success, giving, on the whole, much less pain than the potential. When a woman is taken in labour, she is carried to a room adjoining the ward, and placed on a high couch, while the whole process of delivery goes forward in the presence of the class of females and gentlemen. This, to English eyes, appears indelicate. I afterwards, at Paris, had

* While on the Continent I was consulted by a person who had been bitten by a dog suspected of being mad, and who obstinately refused to submit to excision of the bitten part; I ordered him to take carbonate of iron. No symptoms of hydrophobia have appeared. I merely mention this case for the purpose of stating, that while prompt excision is the only treatment to be relied on, iron is the prophylactic I should soonest try, where, as in the present instance, the patient refuses to submit to the operation. For the sake of lay readers I again add, that excision *only* is to be relied on.

ample opportunities of observing the same system in the *salons* of my respected friend the Dr. Halmagrand, but I never witnessed in either city the slightest indecorum amongst the *elevés*.

Amongst the numerous autopsies which occurred during my attendances upon the *Hotel Dieu* in Rouen, the most interesting was that of a woman who had a polypus of the uterus quite as large as the head of a boy four years old.

The *Hospice General* contains two thousand persons of both sexes, principally poor, aged, and infirm. The *Hospice des Alienes* is an admirably conducted institution for lunatics. These three magnificent hospitals are supported by the tolls of Rouen, and are attended by the Sisters of Charity as nurses.

The public library, at the *Hotel de Ville*, contains an excellent and well-selected collection of ancient and modern medicine. Like all similar institutions in France, it is open to every one.

There exists in this town a well arranged botanic garden, containing four thousand species of plants, and a course of public lectures on the science is annually delivered.

The museum of Rouen is in its infancy, but promises well; it contains some petrified and fossil shells, found on the coasts of the department (Seine Inferieure), not now discoverable in the neighbouring seas, but resembling those found in the seas of India and China. I have been told that eagles and vultures, from the Highlands of Scotland, have been carried by high winds to the neighbourhood of Rouen. The mineral waters of Forges, near Rouen, are much esteemed. They are chalybeate, and have three sources, called "La Royale," "La Reinette," and "La Cardinale," from Louis the Thirteenth, his Queen, and the Cardinal Richelieu, to whom they were recommended; I had not an opportunity of minutely analysing the water, but in taste it was nearer to the chalybeate at Swanlinbar in the county of Cavan in Ireland, than to any other spring I recollect.

The fees of medical practitioners at Rouen are very much the same as at Paris.

The city contains a society of physicians and one of apothecaries. The latter profession, here, as all over France, is strictly confined to the practice of pharmacy; and, to borrow the allusion of a distinguished professor of my alma mater, in giving his testimony before Mr. Warburton's committee, an apothecary here would as little think of prescribing remedies, as a surgical instrument maker would of performing an operation.

5, Salisbury Street, Strand,
Feb. 19th, 1835.

MEMOIR OF DUPUYTREN.

In the Number of The Lancet for February the 14th, we gave a biographical sketch of the late Baron Dupuytren. We now propose to take a view of him as a man of science, and record, while his memory is still fresh, some notice of all that he has done for the advancement of that art, to the perfecting of which his life and talents were incessantly devoted. It is not easy to convey a personal idea of Dupuytren. He was one of those individuals whose countenance always struck observers as emblematic of a mind whose exact character was not expressible in words. The contemplation of his features left a "je-ne-sçai-quoi" impression on the feelings even of the most acute physiognomists,—half pleasurable and half dissatisfied,—a sensation at once of admiration and dislike, for which it was found impossible to account. Dupuytren was a man of middle stature, brown complexion, and strong make. In his youth he must have been extremely handsome. Those who possessed the personal acquaintance of both, must have observed some resemblance between Dupuytren and the professor of anatomy in the University of Dublin. The striking magnificence of forehead, expressive of intelligence of the highest order, and the small dark piercing eye which distinguished the one, had their rival in the other,—that eye, oftenest twinkling with playful malice in the one, and in the other darting those stern annihilating glances which rendered the presence of the great surgeon of the *Hôtel Dieu* so imposing, and frequently so oppressive, to those who fell beneath his scrutiny. "His eye" says a French author, "was enough to terrify a Corsair."

But it was to the peculiar expression of his mouth that the physiognomy of Dupuytren owed its characteristic cynicism and appearance of universal distrust. Viewing the upper part of his face, and particularly his broad fair forehead covered by a thin white *chevelure*, the figure was that of a man imbued with feelings of benevolence and accustomed

to exert the most untiring patience. But soon would the impression be destroyed by a sudden curl of the lip, an almost imperceptible compression of the mouth, a fastidious though polite shrug of the shoulders,—tokens of the mental storm within, which, with calm exterior, he was disdainful to show, refusing to let his fellows become witnesses of any one feeling that governed him. Without the appearance of avoiding society, though present at all the learned meetings of the French capital, at the Faculty, at the Court, at the reunions of private life, DUPUYTREN was, intellectually speaking, a perfect anchorite. Admired by all, the friend (perhaps) of a few distinguished men, there was not one who could say "I know him." We have already hinted at a cause which, to many, explains the secret reason of the cynicism and distrust of his fellow-men that have thrown a shadow over the fairest days of DUPUYTREN's life. That cause was sufficient to account for even still more remarkable effects; but others attribute his constant ill-temper and *ennui* to a weakness which is common to a class of great men who are yet not sufficiently great to despise the malice of the envious. DUPUYTREN never forgot a kindness, and never forgave an injury. His ambition was fully equal to his talent, and under the coldest exterior he concealed a heart which was sensible to the slightest impressions. He felt conscious of the superiority which he so fully possessed; and to justify his pretensions, he sacrificed all the pleasures and comforts of private life, and condemned himself, as we have heard him say, "to lead the life of a dog." "Above all things avoid being an insignificant man" (*ce qu'il faut craindre avant tout, c'est d'etre un homme mediocre*), was one of his favourite maxims, and to escape the chance of a humiliating mediocrity he devoted every energy of his mind, succeeding to the utmost verge of his resolve, but not without most bitterly experiencing the stings of envy and calumny, nor without nourishing an implacable hatred against the authors of reports which a man of less susceptibility would have treated with deserved contempt.

The life of DUPUYTREN afforded various examples of the intensity of this dominant morbid feeling, and of the manner in which he avenged himself. How deep and ramified the root hypocrisy had taken in the vicious court of CHARLES the Tenth, is too notorious to need description. The royal favour there could only be obtained beneath the guise of professed religion. Every one had his confessor, and the worst sinners passed for the greatest saints. With this crowd DUPUYTREN was accused of mingling, in person and in object, and malice once went so far as to declare that he had dropped expressly from his pocket a little prayer-book within the precincts of the royal apartment. Innumerable epigrams sprang from the alleged incident, but, equally insignificant with the charge, they were soon buried in oblivion. The memory of the affront, however, never passed from the mind of DUPUYTREN, and years afterwards, on being accidentally called to attend the daughter of a countess, the supposed authoress of the story, he avenged himself by the infliction of treatment the most cruel and heartless on the mother at the death-bed of her daughter.

The dress which DUPUYTREN invariably wore was very peculiar. At the Institute or the Faculty, in town or at the court, in summer and in winter, he was always clothed in a little round-cut green body-coat, to which, when he visited the hospital, was added a small green cloth cap, of a cut altogether original. Those who have at any time followed his clinique at the *Hotel Dieu*, will remember the slow, the almost jesuitic pace, with which he entered the amphitheatre, the brim of his green casquette turned from his forehead, the white apron in front, his right hand thrust into the bosom of his coat, and his left constantly applied to his mouth; for no matter in what society he found himself, whether in public or in private, at the hospital or presiding at a concours at the Faculty, DUPUYTREN had a habit of constantly gnawing the nails of his left thumb and index-finger, like one who suffers from some intense bodily or mental pain.

When seated in the professor's chair, he never addressed himself to more than a fraction of the audience; his back was turned

upon at least three-fourths of the assembly, and he commenced with a low and indistinct muttering, which afforded little indication of the splendid, and on many occasions truly eloquent discourse that was to follow. The most profound silence always reigned in the crowded class which filled the amphitheatre of the *Hotel Dieu*, as though all were anxious to catch even the first word that dropped from his mouth; and if, during the lecture, any one permitted himself to betray a symptom of *ennui*, one of his searching glances, with a motion of the lip expressive of the most ineffable contempt, covered the thoughtless culprit with shame and terror.

In the wards of the hospital, the originality of DUPUYTREN appeared even with more relief. On rare occasions he descended so far as to joke with a patient; but towards the students, and even to his own dressers, he was cold, ironical, capricious, and tyrannical, to the last degree. Frequently did it happen, on questioning a patient for a few seconds, that if the answers were not given as clearly and precisely as the inquiries, he would punish the unfortunate *malade* by a shrug of his shoulders, and a departure without a moment's further attention to him. Not easily shall we forget the day when the mother of a child whose leg he was about to amputate, having forced her way into the amphitheatre, suddenly interrupted the operation; the self command of DUPUYTREN left him, and forgetting what was due to humanity,—to a woman and a mother,—he turned out the agonized parent from the room, with a *coup de pied dans le derriere*.

DUPUYTREN never tolerated the slightest suggestion or contradiction affecting his measures or opinions, and, as we have remarked, his treatment of the pupils who were placed under him in the hospital was marked by the utmost austerity. The number of his dressers at the *Hotel Dieu* amounted to twenty-six. At six of the clock every morning he called over the list, and no excuse for absence was admitted. More than once he has publicly degraded an *externe* who had disobeyed his orders, or showed some symptoms of insubordination, by tearing off his white apron and other such insignia; and, on one occasion, it is said that he so far forgot himself as to strike the apothecary of the hospital, giving the offended pharmaceutist, however, the honour and "satisfaction" of a meeting next day in the Bois de Boulonge; but the duel was, we believe, prevented by the police.

It is a matter of sad experience, that talent and integrity alone are rarely sufficient to raise a man to the high posts of honour in a large capital. The candidate must have protection, and a *savoir vivre*, without which he may struggle for years in obscurity. DUPUYTREN was fortunate in both respects. At a very early period of his life, places were offered to him in the hospitals of several large provincial towns, but he always took care to recommend to the post one of the young rivals whom fame or competition might at a future day become troublesome to him. Thus, of five or six competitors who originally opposed him, he succeeded in placing one at Clermont, one at Rouen, and one at Strasbourg, and he finally vanquished the remaining three — M. ROUX, M. MARJOLIN, and M. DELPECH, in the celebrated concours which took place for the chair of Operative Surgery, on the death of SABATIER, in 1812.

DUPUYTREN owed his appointment to the head surgeoncy of the *Hotel Dieu*, where he has ruled, the absolute master, for the last sixteen years, to an accidental circumstance, which deserves to be recorded, both as an example and a warning to hole-and-corner surgeons in all quarters. Previous to the year 1817, PELLETAN was surgeon-in-chief of the *Hotel Dieu*. DUPUYTREN, who served under him as second, soon became an object of jealousy to the old professor. Distrust succeeded jealousy; then followed mystery, and, finally, a secret operation, by which PELLETAN was completely ruined. In 1817 there was a patient in the female wards of the *Hotel Dieu* who was affected with an enormous carcinomatous tumour of the upper arm. The disease extended to the parietes of the chest and to the neck. The bloodvessels were altered, and several other unfavourable complications existed. On a consultation, PELLETAN advised an operation, but DUPUYTREN, in a forcible manner, pronounced various

reasons against any attempt to remove the tumour. The patient was undecided. In this state of things, PELLETAN was imprudent enough to shut himself up with a few favoured pupils, and perform the operation in private, without having informed DUPUYTREN, or any other person who was absent, of his intention. The patient died almost immediately afterwards, and this event was followed by the retirement of PELLETAN.

The reputation of DUPUYTREN as a first-rate surgeon was now fully established. His private practice became considerable, and in 1820 the assassination of the Duke DE BERRY introduced him to court, thus laying the foundation, if not of his professional reputation, at least of the immense fortune which he has left behind him. If report speak truly, the surgeon of the *Hotel Dieu* on this occasion, for the first time, lost the *sang-froid* and presence of mind for which he was so remarkable, and committed two essential errors,—one as a practitioner, the other as a courtier. In the first place he sounded the wound of the Duke,—a penetrating wound of the chest! In the next he abstained from answering the KING when his Majesty addressed to him some question in Latin. Little faith, perhaps, will be placed in the excellence, or even, the existence, of the Latinity of LOUIS XVIII., for since the time of the scholarly JAMES, the classics have fallen into disrepute at courts. However, here is the anecdote in detail, as told by a man of letters. Immediately after the accident, LOUIS, who loved his nephew tenderly, entered the sick chamber, surrounded by a crowd of princes and surgeons, burning with anxiety to know the probable issue of the injury, and at the same time anxious to avoid alarming the patient by any imprudent remark. The King turned to DUPUYTREN, whose appearance even then attracted his notice. Nothing would have been more simple than a whisper in the ear of the surgeon, conveying a request for his opinion. But so close an approximation of King and subject as that species of communication would require, was incompatible with the dignity of a royal personage, and so it was regarded by his Majesty, who relieved himself from the dilemma by reducing his question into Latin, presumed to be the language of physicians, and one with which the patient was known to be but slenderly acquainted. But the words fell dead from the royal lips. No answer was returned to them by DUPUYTREN, whether from indisposition to reply, ignorance of the language, or confusion at the scene, and M. DUBOIS, who happened to be present, answered for him.

It was, however, rarely indeed that DUPUYTREN allowed himself to be surprised. If he was excelled in a few particulars by some surgeons,—if, for example, as we admit, M. ROUX was quicker and more dexterous at an operation,—DESSAULT more brilliant as a professor,—BOYER more prudent and humane, and MARJOLIN more profound,—there was none who could compare with him for imperturbability of mind in the midst of accidents or untoward circumstances,—none whose eye was more certain, or whose hand was more firm. Like other surgeons, he has made mistakes. He has opened an aneurysm for an abscess, and has cut for the stone when no calculus existed in the bladder; but such errors only gave to DUPUYTREN an opportunity of displaying his superiority. They never disconcerted him. Thus, upon one occasion, when extirpating a tumour from the neck, he accidentally opened a large vein, and the patient expired in an instant, from the admixture of air with the blood. Without being affected by an accident which would have disconcerted nineteen out of twenty practised men, he coolly turned to the class at once, to discuss the cause of death in an extemporaneous lecture, which has seldom been surpassed or equalled for the excellence of its matter and arrangement.

It was, indeed, as a clinical professor that DUPUYTREN obtained the surpassing reputation which placed him at the head of European surgeons. He succeeded, at the *Hotel Dieu*, the most eloquent lecturer that France ever produced, and in his new office not only sustained the character of the school at its full height, but raised the clinical instruction to a point which must be regarded as little short of perfection. The "Leçons Orales," published under his direction, and from which we have translated so many lectures, con-

vey, perfect as they are, but a feeble idea of the rich and well-selected materials which he has been for years submitting, without intermission, to the attention of the pupils of the hospital. DUPUYTREN was not what is usually called an orator. He seldom had recourse to literary embellishment, or borrowed from the works of others; but his elocution was simple and elegant, his language clear and perfectly correct. Weariness never stole over his audience during the lecture, from the assemblage of useless details, or superfluous repetitions. On the contrary, his discourse, which flowed from him with the ease and fluency of a perusal, was stored with facts selected from his own practice, and arranged with a clearness that showed how perfectly he understood and had studied every branch of the art.

As an operative surgeon he was successful, without being brilliant; indeed it is notorious that he failed much less frequently than his rival at *La Charité*, M. ROUX, who, in spite of his wonderful dexterity, and excellent method of manœuvring the knife, lost at least three patients for every two of DUPUYTREN. The cause of this difference is easily explained. Surgery is no longer what it was a century ago,—the art of lawfully cutting and hacking the human body. A more rational direction is given to the studies of those who commence their surgical career. These first apply themselves to medicine as the parent art, and regard surgery in its true acceptation, viz., as a branch of medicine, in which the occasional employment of instruments is demanded. How numerous are the diseases awarded to what is called "surgical practice" which not only are "internal," but are quite beyond the reach of instruments! Regarding surgery in this its true sense, we hesitate not to place the late Baron DUPUYTREN at the head of European surgery. He operated with great dexterity and with immoveable *sang-froid*. But his chief qualities consisted in the perfect correctness of his diagnosis, and the admirable manner in which he managed the therapeutic treatment of his patients. In the great majority of all descriptions of cases, the great difficulty is to establish a correct diagnosis, for on that alone can treatment be correctly founded. The one is subjective to the other, and is a secondary branch of the art. In diagnosis DUPUYTREN was equalled by no surgeon of his time. A few questions, often put in the most careless tone, a single look, the application of the hand on the abdomen, were sufficient to reveal indications, which, assembled in his mind with almost inconceivable rapidity, afforded conclusions to the surgeon that seldom if ever were erroneous. Not that he was infallible; and it was a reproach that he did not evince that frankness of manner and readiness to acknowledge the commission of an error, which should distinguish all men, and especially surgeons. So far from exhibiting a willingness to admit the commission of a blunder, DUPUYTREN was not ashamed to resort to unblushing falsehood to conceal it. On one occasion, for instance, at the *Hotel Dieu*, where the intestine had been opened during the operation for strangulated hernia, DUPUYTREN, when showing the piece to the class, forcibly thrust his finger through the incision, and dilated with eloquence on the curious way in which gangrenous inflammation sometimes *cuts through the intestine like a knife*, although the interne by his side (at the risk, as he himself said, of being kicked) now and then gave the professor a hint that he was mistaken, and that the opening which he demonstrated was not due to inflammation but to the bistoury. Traits of this kind were not unfrequent. The *amour-propre* of DUPUYTREN even pushed him to the publication of inaccuracies where he was certain of being detected. Thus in his "Leçons Orales," and long before them, in 1824, he boasted that the mortality of the *Hotel Dieu* was reduced to 1 patient in 20, 1 in 19, or 1 in 18, as a mean term; but authentic documents, since published by the authority of the Council-general of hospitals, showed that at that very period the mortality amounted to 1 in 14.

As a writer his reputation is neither great nor extended. He was, in fact, so occupied by practical duties that he had not time to write. It was chiefly as a clinical professor that he shone, and during the twenty years that he gave instruction, the clinical school of the *Hotel*

Dieu has produced more brilliant surgeons, and disseminated more new and wholesome ideas on surgery, than any other establishment of the kind in Europe.

If DUPUYTREN, however, did not himself write, yet his ideas have been taken up and published by others, and it would not be a matter of difficulty to enumerate a number of excellent works, of memoirs which have covered their authors with renown, that were taken from the fertile source of his clinical instruction. The little which DUPUYTREN has furnished from his own pen, is to be found in the memoirs of the *Royal Academy*, and in the Dictionary of Medicine. Amongst the most remarkable we may enumerate, *in anatomy*, Researches on the Spleen, on the Veins of Bones, on Fibrous and Erectile Tissue:—*in physiology*, on the Nerves of the Tongue, on the Motions of the Brain, on Absorption, and on the Influence of the Eighth Pair of Nerves:—*in pathological anatomy*, Memoirs on the Neck of the Long Bones, on False Membranes, on Amputation of the Lower Jaw-bone, on Ligature of certain Arteries, on Fracture of the Fibula, on Artificial Anus, on Diabetes Mellitus, on Congenital Luxation, and on Retraction of the Fingers. It is said that he has left an unpublished treatise "on the Diseases of the Glands."

Besides these permanent "titles," DUPUYTREN has modified a great number of operations, and is the author of several most useful instruments. For example, his *enterotome* is sufficient alone to have immortalized any reputation; indeed we should be inclined to place his operation for artificial anus after that of lithotrity, and it is infinitely more successful. Thus, up to 1824, forty-one operations, the greater part of which had been rendered necessary by gangrene of strangulated hernia, were performed with the enterotome. Of these only three were unsuccessful; the remaining 38 patients were cured without any accident or risk. Since 1824, at least 100 operations of the same kind have been performed, and with similar results. DUPUYTREN also invented a double-bladed bistoury for the bilateral operation, a cataract needle, a compressor in cases of hemorrhage, a porte-ligature; and, as we have mentioned, he has introduced excellent modifications of most of the great operations in surgery.]

By his death the science has lost one of its most solid ornaments, and the school of medicine in Paris its most accomplished professor. The void which he has left is immense. Who can fill it? Who can now succeed to that chair with eclat, which has been filled by DESSAULT, PELLETAN, and DUPUYTREN? That it will even be filled to the best advantage which circumstances admit, we have reason to disbelieve. Intrigue is at work, and there is cause to engender a fear amongst the profession in Paris, that the clinical instruction in the *Hotel Dieu* will be intrusted to one of the worst clinical lecturers in that capital. M. ROUX removed to the hospital on Monday last, and his place will be filled by VELPEAU.

THE LANCET.

London, Saturday, March 7, 1835.

WHEN the Anatomy Bill was before Parliament, we threw out several suggestions for the consideration of the Legislature, relative to the omission of one important principle, and two or three striking defects in the details of that measure. It is, however, but justice to remark, that Mr. WARBURTON and the gentlemen by whom he was supported in conducting the Bill through Parliament, were, equally with ourselves, aware of the absence of those provisions which were essential to the conversion of the Bill into a perfectly unobjectionable statute. The public and even the legislative prejudices were such, that many things were yielded to *expediency*, rather than hazard all that was desirable, by contending, on abstract principles, for what was felt and acknowledged to be just, by the philosophical advocates of medical education. Still, we never could understand how it was possible

that the progress of the measure could be impeded, or how its success could be hazarded, by a recognition of the principle in the penal clauses of the statute, that the traffic in dead human bodies should henceforth be regarded as in opposition to the law of the land. On the contrary, it would, *à priori*, appear to every rational mind, and especially to those persons who recollected the atrocities which had been perpetrated in Edinburgh and London, that no acknowledgment on the part of the Legislature would, or could, have been calculated to render an Anatomy Act less obnoxious to the views and feelings of the community. What was it, we would ask, that made the business of the resurrectionist so odious and detestable? Simply, because he carried on his unhallowed midnight calling for the sake of lucre,—because the acquirement of pelf was made paramount, and not willingly subservient, to the purposes of science and humanity. Instead of interdicting the sale of the dead, the Act absolutely rendered a traffic in human flesh A LEGAL OCCUPATION, and it is owing to that very circumstance that so many intrigues have been set on foot by the rich monopolists, with the sole object of destroying the far less wealthy private schools.

An inquiry was lately promoted in London by certain members of the Council of the College of Surgeons,—persons who were intimately connected by ties of interest with several of the schools attached to our endowed hospitals,—in the charitable hope that the Inspector of Anatomy in this metropolis would be proved to be guilty of having acted a most dishonourable partiality in the distribution of unclaimed bodies to the schools of anatomy in London. Every portion of the evidence, however, which was given in that inquiry, testified so strongly to the integrity with which that gentleman had discharged his duties, that the investigation was brought to an abrupt conclusion, and all further proceedings connected with the subject were adjourned *sine die*. Complaints had been made, not only that the supply of subjects had declined during the autumnal quarter of 1834, as compared with the autumnal quarters of 1832 and 33, but, also, that the bodies which had actually been furnished to the schools with the permission of certain parochial authorities, had been supplied in a manner that denoted a very unjust leaning in favour of particular establishments. With regard to the last accusation, we have not only already shown that it was utterly destitute of foundation, but that the mode of conducting the business of the office of Inspector had been managed with such strict and scrupulous rules of propriety, that even the calumniators of Dr. SOMERVILLE were compelled, from the evidence that was adduced before them, to acknowledge, in their report to the Secretary of State for the Home Department, that none of the inconveniences under which the teachers of anatomy laboured, were attributable to any proceedings of which that gentleman had been the author.

And what was the fact relative to the allegation that there had been, in the autumn of 1834, a deficiency of supply as compared with the corresponding quarters of the two previous years? Simply this, that more subjects had been furnished to the schools of this metropolis in the latter period, than during either of the former periods named. It would appear, then, that the Anatomy Act is not so defective in efficient details as has been stated. It is but *appearance*, however, as a very few words will show, that Dr. SOMERVILLE has guided his course by a written agreement which was entered into by the whole of the lecturers of anatomy, stipulating that the supply of subjects *should be regulated by the Inspector*, with

the most perfect impartiality, according to the number of students in each school. Into this agreement the monopolists, as well as others, *voluntarily entered*, and it was not until the unfortunate discovery was made *that the smaller schools were thriving under it*, that the monopolists raised their complaints against the inspector, endeavouring, at the same time, to wrest the seal from the fatal obligation to which they had become bound. This point is one of very great importance, and deserves the serious attention of the gentlemen who have recently been moving on this question in Edinburgh,—an abridged report of whose proceedings at a public meeting, which was attended by more than seven hundred students, will be found at page 835 of our present number. The lecturers of that city should instantly be called on to agree to allow the Inspector to assign the bodies to the respective schools, in quantities proportioned to his means, and to the number of students in each establishment. True it is that a stipulation of this kind should be made imperative on the Inspector by the provisions of the Act, but in the absence of such a controlling legislative authority, the most effective, and the only efficient, substitute for it, is to be found in an agreement amongst the lecturers themselves, for in the absence of such an agreement, under the present state of the law, the Inspector is not compelled to make the distribution with impartiality. In fact, he has *no power to distribute at all*, as his duty in granting a certificate for the removal of a body, is strictly ministerial, and in no respect deliberative.

With respect to the prejudices which are still entertained against dissection, there is one point which we would urge on the attention of the lecturers and students of Edinburgh, and, indeed, on all gentlemen who are similarly circumstanced elsewhere, namely, that no opportunity should be omitted which can be made available to render persons in the humbler walks of society acquainted with the advantage which they must derive from a due cultivation of the science of anatomy. In 1826 we first brought this subject under the attention of our readers, and immediately afterwards, with the most praiseworthy zeal, Dr. Birkbeck delivered a series of anatomical demonstrations at the *Mechanics' Institute* of London. The result was precisely in accordance with what was expected.

The mechanics, accustomed to manual arts and a free exercise of the perceptive faculties in works of general handicraft, acknowledged, with unrestrained gratitude, the favour and advantage which had been conferred upon them by the demonstrations in question, and not a dissentient voice was heard when the grateful thanks of the assembly were bestowed on their eloquent and generous instructor. If the mechanics of Edinburgh were invited to be present at a few demonstrations of anatomy, the illustrations having particular reference to accidents and diseases connected with the bones, the bloodvessels, and the nerves,—to defects of the organ of sight and the means of removing them,—we are satisfied that more might be done in a few months by such a proceeding, towards the removal of the prejudices which remain against dissection, than could be accomplished by any arguments addressed merely to the reason, in fifty years.

It would be ill-timed and out of place to offer any comments on a petition which, though it has been finally adopted, has yet to be presented to the Legislature. We therefore refrain from making any reference to the prayer to Parliament from the medical students of Edinburgh, adopted at the meeting already mentioned, and a copy of which will be found attached to the report, at page 840.

The following decision of the administrative power in France has been given against an homœopathist:—An externe at the hospital of Grenoble, who wrote some remarks in a journal in favour of the homœopathic doctrines, has just been dismissed from the number of externes by an order of the prefect, who, it appears, has the right to exclude from the hospitals any pupil who infringes on the order of the establishment. We relate this fact, without any comment, because we think that the homœopathists, like most other charlatans, are more served than injured by the noise made against them. The French Academy has not yet given its answer to the minister on the propriety of establishing an homœopathic hospital. We have, however, just received an explanation of this strange demand, which is amusing enough. The "young wife" (*vide* the newspapers), to whom Dr. Hannehmann has just been married, turns out to be an old mistress of M. Thiers, the Minister of Public Instruction. Hence the proposed voyage of the old homœopathist to Paris; hence the proposition of the minister; and hence, in all probability, charlatans and rogues will delay the reply, they being all the while the more impudent and successful, from the full reliance which they place upon protection at court.

Recherches sur les Effets de la Saignée dans quelques Maladies Inflammatoires, et sur l'Action de l'Emetique et des Vesicatoires dans la Pneumonie. Par P. Ch. A. Louis, M.D.. Paris, 1835. pp. 120.

The method adopted by Louis in his pathological inquiries, has for some time appeared to us to be worthy of serious attention, and calculated to introduce a reformation almost as important in the internal economy of medicine as any change hitherto contemplated in its external relations. In the present work, that method is illustrated by an interesting series of observations, and is asserted, developed, and defended, in a manner which is very likely to arouse the dormant spirit of those who are reposing on traditional belief,—on opinions empirically collected,—and who are uttering oracles which they regard as the legitimate expression of their own and other men's experience. Although Louis has not dazzled or entertained the world with a seductive theory,—has not found out a new disorder (in the rectum for instance), nay, has not even discovered and promulgated a *new medicine*, his labours entitle him to rank as a discoverer in the best sense of that term, and he has assuredly trodden a sure path of utility and fame, by applying some of the exact methods of observation and induction which are employed in the other department of science, to medicine.

At an age when most successful medical men quit the hospitals and their studies, Louis renounced practice, and devoted himself entirely to observation in the wards of *La Charité*, under Chomel. He collected, with scrupulous care, the history of 1960 patients,* and the post-mortem appearances of 358 persons who died in that hospital† (1821-5); and these facts furnished matter for his work on phthisis, which at once placed its author among the most industrious observers and the most severe reasoners of his time. Wishing, apparently, to accomplish for acute diseases what he had so thoroughly effected for those of a chronic nature, he continued his investigations, and in 1827 published his "Recherches sur le Gastro-enterite," which presented analyses of the morbid changes in the viscera of 133 cases, and of the symptoms of more than 900 cases of typhus and other acute diseases. Since his appointment as physician to *La Pitié*, his *conferences cliniques* have been numerously attended, particularly by English and foreign students; and we are well assured that the diagnosis and

* "Rapport fait à l'Academie Royale de Médecine," par Bourdois, Royer Collard, et Chomel, 1825.

† "Nous avons passé régulièrement trois à quartre, et quelquefois cinq heures par jour, à l'hopital, consacrant au moins deux heures à chaque autopsie cadaverique."—*Phthisie.*

doctrines of few practitioners are so accurately verified at the bedside, or in the dissecting-room.

After examining all the states and functions of the body, the order of their derangement, and, in case of death, the appearances of each organ, he ascertained those which were peculiar to the disease in question, and those which were common to it with other acute or chronic affections, and then proceeded to determine the importance or frequency of a morbid change, symptom, or cause of disease, by counting the number of times it occurred in the particular group. Thus he discovered that two in three of those who die from consumption, suffer attacks of hæmoptysis; that females are more subject to that hemorrhage than males, in the proportion of three to two; that fatty liver occurs in two cases out of three; diarrhœa in twenty-nine cases out of thirty; ulceration of the glands of PEYER in five cases out of six, and that ulceration of those glands, and alterations of the mesenteric glands distinguish every case of typhus fever, while the lesions of no other viscera are constant, and these glands are unaffected, in almost every other acute disease. The young, he discovered, are most subject to typhus fever; the mean age of those in whom it terminated fatally being twenty-three years, and of those who recovered twenty-one years. To detect the therapeutic action of remedies, he pursued the same plan, and observes:—

"In the history of medicines, it is not their immediate action on the economy that we want particularly to know, but their therapeutic action, properly so called, or their influence on the course and issue of our various affections. This I have endeavoured to determine with regard to loss of blood, and tartarized antimony. The method I have pursued appears to me, at once natural and rigorously correct. What, in fact, was necessary to be done, in order to know whether bleeding exerted a favourable influence in pneumonia, or the extent of that influence? Evidently to ascertain whether, *cæteris paribus*, the patients who were bled on the 1st, 2nd, 3rd, or 4th day of the affection, recovered more rapidly or in greater numbers, than those bled at a later period. The same procedure would show the influence of age, or of any other circumstance on the appreciable effects of blood-letting; whether individuals placed in this particular circumstance, recovered sooner, *cæteris paribus*, under the influence of venesection, than individuals in other circumstances."

By presenting as complete a view of the author's researches on the influence of bleeding in pneumonia as our limits will admit, his method and the mode of its application in practice, its advantages and its inconveniences, will become evident; and in another number we may examine the nature of the evidence, generally, which is adduced in proof of the efficacy of any particular course of treatment; and the question, whether it is possible to arrive at any positive results in therapeutics by any other method than that here proposed.

There are two series of observations in separate chapters; the first collected at *La Charité*, the second at *La Pitié*, each treated by LOUIS himself. The first chapter presents a table of 78 cases of pleuro-pneumonie, 28 of which terminated fatally. All the individuals were enjoying perfect health when the first symptoms of the disease appeared. No doubt could be entertained with regard to the nature of the affection, all of the patients having expectorated viscid, semi-transparent, reddened sputa, and presented crepitation, varying in extent, bronchial respiration, broncophony, and dulness of sound, in the corresponding point of the chest.

The commencement of the affection was fixed at the time when fever first came on, either immediately followed or accompanied by pain in one side of the chest, or by reddened sputa—these two symptoms occurring at the same, or very nearly at the same time. Convalescence was fixed at the period when the patients were able to take some light food,—three days at least after the cessation of fever,—the local symptoms not being in every case entirely dissipated; that is to say, percussion over the affected part did not always produce a perfectly clear sound. The respiratory murmur was not quite pure, the ear detecting, here and there, some traces of crepitation and crackling,

—feeble relics of a pathological condition, which disappeared, on convalescence, with a rapidity proportional to the earliness with which antiphlogistic measures were instituted.

Of the fifty persons who recovered, ree were bled on the 1st day, three on the 2nd, six on the 3rd, eleven on the 4th, six on the 5th, five on the 6th, six on the 7th, six on the 9th, and four on the 9th day of the disease; the mean duration of which will be seen in the following table, where each case is placed under the day in which the first bleeding was performed. The duration of the case standing on the left, and the number of bleedings on the right of each column.

TABLE *of Fifty Cases of Pneumonia Cured, showing the Duration of each Case, the Number of Bleedings, and the Mean of both.*

Bleeding 1st day.		2nd.		3rd.		4th.		5th.		6th.		7th.		8th.		9th.	
Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.	Days.	VS.
10	3	7	3	16	3	12	2	13	2	13	1	12	4	12	1	11	2
12	2	10	2	17	4	12	4	13	2	16	2	15	2	13	2	17	2
14	2	12	2	19	3	12	4	17	3	17	2	18	2	18	1	30	3
				20	2	15	2	21	2	23	3	19	2	19	2	35	1
				20	—	16	2	28	2	35	5	24	2	20	3		
				20	3	19	3	40	2			27	2	21	2		
						21	2										
						22	4										
						25	3										
						28	4										
						40	2										
12	2⅓	10	2⅓	18	3	19	3	22	2	20	2⅔	19	2⅓	17	2	23	2

* These Tables are very inaccurately printed; the reader will detect several errors, which we have not been able to correct. The mean duration of columns 3, 4, and 6, as they now stand, is 20. 20. 21. The mean duration of the disease in those bled during the four first days, 17.7. In those bled from the fifth to the ninth, inclusive, 20.2.

If a general proposition could be established on so small a number of facts, the necessary inference from this table would be that the antiphlogistic treatment when commenced in the first two days of pneumonia, considerably abridged the duration of the disease, while afterwards it effected little difference, whether instituted a day or two earlier or later. But it will be observed, that the disease lasted only twelve or fifteen days in several of the individuals who were bled later than the fourth day, and many, while out of the hospital, took spirits, wines, and other improper things, in the hope of getting rid of the complaint; so that these circumstances, and the limited number bled on the two first days, do not authorize us in attributing much efficacy to the bleeding in the cases we are now analyzing. The mean duration, however, of the disease in those who were bled during the first four days, was seventeen days; in those who were bled subsequently twenty days. *Age* exerted no appreciable influence on the different duration of these cases; for the ages averaged 33 years in those who were bled on and before, and 36 years in those who were bled after the fourth day.

The facts relative to the cases which terminated fatally, seem to reduce the utility of blood-letting within still narrower limits. Eighteen out of the twenty-eight cases were bled within the four first days,

and nine between the fifth and the ninth day; and if, without considering the termination, we add together, on the one hand, all that were bled in the first period, and on the other, all that were bled in the latter, there will be forty-one in the first class, of which eighteen, or three-sevenths of the patients died; thirty-six cases in the second class, of which nine, or one-fourth only, of the number met with the same fate,—a fearful, and apparently an absurd result, the explanation of which will be found to a certain extent in the following table, which exhibits in each column, from right to left, the duration of the disease, the number of bleedings, and the age of those who died; while the figure above indicates the day when blood was first drawn.

TABLE *of Twenty-seven Deaths, showing the Duration, Number of Bleedings, and Age, of each Case.*

1st Da			2nd Day.			3rd Day			4th Day.			5th Day.			6th Day.			7th Day.			8th Day.			9th Day.		
D.	V.	A.	D.	V.	A.	D.	V.	A.	D.	V.	A.	D.	V.	A	D.	V.	A.	D.	V.	A.	D.	V.	A.	D.	V.	A.
6	5	18	8	2	65	4	1	57	12	1	85	8	2	63	10	2	40	20	2	68	25	1	40	22	1	50
			12	1	55	6	3	30	15	3	37	9	4	24	29	3	24									
			12	3	69	6	4	47	17	1	67	16	4	58	62	4	20									
			17	7	75	11	4	45	20	3	22															
			53	5	65	16	2	54	29	2	19															
						47	2	75	29	4	46															
6	5	18	20	3½	66	15	3	62	20	2½	55	11	3	29	34	3	28	20	2	68	25	1	40	22	1	50

This shows that the patients who were bled within the first four days, with the exception of one in the first column, were older than the others in the proportion of 51 to 43 years,—a difference which, though not very great, must have had considerable influence on the issue of the malady. This difference diminishes considerably if we include those who recovered; in which case the mean ages are as 41 to 38 years. Nevertheless those bled in the four first days whose age surpassed 50 years, were twice as numerous as those who are met with in the other group, and this must have had considerable influence on the mortality.

M. LOUIS proceeds to examine the effects of blood-letting on each particular symptom of pneumonia; and when we state that it was only carried to the extent of ten or fifteen ounces each time, the English practitioner will be but little surprised at the conclusion to which he comes that bleeding will not cut short, nay will scarcely lessen, the duration or the fatality of inflammation of the lungs. This first series of observations was published sometime ago in the *Archives de Médecine*, and excited considerable sensation in France, where small bleedings are relied on with as much faith as bleedings *ad deliquium* are in this island.

We shall now give an analysis of the second series of observations made at *La Pitié*.

"Since the publication of the preceding chapter, I have seen at *La Pitié*," says the author, "a great number of patients suffering from pneumonia; and although I have frequently bled to the amount of 20 and 25 ounces and more, or *ad deliquium*, I have never seen these inflammations cut short (*jugulées*) in any case. Indeed I believe, that blood-letting, although carried in general much further than was customary at *La Charité*, when my first observations were made, has not been attended with much more success. But these general propositions, founded on facts, entrusted for the most part to the memory, are of too little value to merit much importance; and instead of expatiating vaguely on 150 cases of pneumonia, which I have witnessed within the last four years, I shall present an analysis of the facts relative to this affection, care-

fully collected, during my clinical conferences of 1831—33."

These facts amount to 29; four relate to cases which terminated fatally, and twenty-five to persons who left the hospital perfectly recovered. The mortality was one-seventh; in the former observations it was more than one-third.

TABLE of *Twenty-nine Cases of Pneumonia, showing the Duration, Loss of Blood, and Age, of each Case.*

TWENTY-FIVE CASES CURED.

First bleeding.	2nd Day.	3rd Day.	4th Day.	5th Day.	6th Day.	7th Day.	9th Day.	14th Day.
	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.	D. V. oz. A.
	11 3 50 29	9 1 18 20	12 2 35 24	9 1 15 18	12 2 30 67	11 2 34 24		22 1 16 58
	13 2 38 36	11 2 30 60	13 2 30 42	11 1 29 25	21 1 20 38	18 2 38 18		
	16 3 47 30	27 2 30 19	14 2 32 45	28 2 30 41	25 1 20 61	19 2 37 22		
		28 2 25 66	14 2 27 50			21 2 30 60		
			15 2 24 61			24 1 12 62		
			19 2 24 24					
Mean.	14 2½ 45 32	18 1½ 23 41	14 2 30 41	15 1½ 22 28	19 1½ 23 62	18 2 30 37	—	22 1 16 58
			Four Fatal Cases.					
		53	41	11 71			19 70	
				17 61				

The cases underlined were treated with tartarized antimony.—V. is placed over the column Venesection, the oz. over the column showing the amount of blood lost, and the A. for Age.

Here the mean duration of the disease in those who were bled before, and in those who were bled on and after the fifth day, was respectively 15½ days, and 18¼ days; while at *La Charité* the mean duration of the two groups was 17½ days, and 20 days. The pneumonia of those who entered the hospital after the fourth day, seemed in general to be as intense as in those who entered and were bled earlier; the apparently slight effect of loss of blood in the earlier stages cannot therefore be attributed to its greater violence.

It may be said, that bleeding was not the only treatment employed; and that other therapeutic agents counteracted its good effects. To this it is replied, that in fact several of the patients bled before the fifth

day took tartarized antimony in large doses; but that the others who were bled later did the same; and, affecting both groups equally, this circumstance may, relatively to our present object, be neglected. Besides, a further development of the facts will show, that tartarized antimony, far from being injurious, was beneficial.

By examining the progress and duration of each particular symptom, the conclusion must be the same as that deduced from the first series of observations.

Pain was never removed (*jugulée*) by loss of blood; it was only slightly modified by general bleeding; twenty-four hours after which it was a little less severe in the majority of cases. Its mean duration was 7½ days; in cases of inflammation of the lower or upper lobe of the lung, and in one of the last description, in which the patient was bled to syncope and lost thirty ounces of blood on the third day, the pain was but slightly diminished on the following day. The *sputa* in no instance lost their pathognomonic character after bloodletting. Their mean duration was proportional to that of the malady; so that they were characteristic up to the 7th day in those bled before, and to the 9th in those bled after the 5th day. The duration fluctuated in the first group from 4 to 11 days, in the second from 7 to 14 days.

Crepitation persisted longer than the foregoing symptoms; from 10 to 14 days in the first group, from 10 to 19 days in the second; giving a mean of 12 and 14 days for the two. It was not cut short in any case. The *respiratory murmur* remained bronchial during 18 days; broncophony, produced by the same causes, terminated at the same time. *The dull sound* was observed in all the patients, and continued for 19 days. In two patients this was much less the day after the first venesection; in the others the amendment was only observed from 2 to 5 days afterwards. The *pulse* in three cases bled on the 2nd day, fell on the morrow from 120, and 100 to 108, 96, and 90. But the day after a second bleeding it was 104, 108, and 90; it had therefore only fallen a few beats after two bleedings. In all those who were bled before the fifth day the pulse was little better the day after; but in those who were bled subsequently the pulse was, in the greater number of cases, improved on the morrow.

In the present cases, as in those before discussed, venesection had only a marked influence on the progress of the symptoms of pneumonia, when performed considerably after its commencement; doubtless because the disease was approaching its natural term, from which it was further removed when the patient was bled earlier.

Four out of twenty-nine patients died, or one-seventh of the number. One was bled before, three on and after the fifth day; the mortality of the first group was then one-fourteenth; of the second, three-fifteenths. But this difference is rather attributable to the age, than to the early bleeding; for the age of the first averaged 39 years and 3 months, of the second, 47 years and 8 months, as may be discovered by the preceding table.

But to what can the different mortality of the patients be attributed? Not to a difference of age, for this was trifling, and in favour of the former patients, who were, on an average, forty years old, while these averaged forty-three; nor to the time of bleeding; nor to the seasons of the year. It can, then, only be accounted for by ascribing it to the more copious blood-letting, and the tartarized antimony employed in the latter cases.

If the bleedings were generally less frequent at *La Pitié*, they were more copious, particularly the first; and this difference, though not very considerable, must have had some influence on the favourable termination of the disease.

The *tartarized antimony* was administered to the patients who recovered during four or seven days, in doses increased from six to twelve grains, in six ounces of distilled Linden water, sweetened with half an ounce or an ounce of sirup of diacodium. Their illness lasted, on an average, eighteen days; three days longer than that of the patients who did not take this medicine, so that at first sight it may seem that tartarized antimony had an unfavourable influence on the course of the disease.

This ill effect is but apparent: tartar-

ized antimony was given, after several bleedings, because the disease grew constantly more formidable, on the eighth day, taking the average, and where the patient had not been bled before the fifth day, while those who did not take the tart. ant. were bled on the third day. In other words, this medicine was only given in the most unfavourable and dangerous cases; which explains the longer duration of the disease in these instances. Let us add, and it is not necessary to insist on the importance of this fact, that those who took the tartarized antimony were much older than those who did not take it; their age averaging 31 years, while that of the former averaged 45 years,—an enormous difference, which indicates that this medicine, instead of having an unfavourable influence on the course of pneumonia, accelerated its termination, and, in some instances, prevented the termination from being fatal.

This last proposition seems confirmed by the changes which almost immediately followed the administration of tartar emetic. On the next day, fifteen out of those who took it were better, or much better; having evidently acquired strength, a better expression of countenance, and less embarrassed respiration. Besides, thirteen of them in whom the chest was more or less dull on percussion, in a certain space, when tartarized antimony was administered, were considerably improved in this respect on the following day; percussion of the thorax being more sonorous: and this amelioration persisted, and every day made new progress.

The acquisition of strength, the day after taking tartarized antimony, was the more remarkable, as this medicine produced vomiting and purging sixteen times out of seventeen; the stools were increased to eight or fifteen on the first day; half the number on the second; and on the third and fourth the stools returned to the ordinary state. Vomiting was less frequent, and did not continue so long as the purging. It did not occur in five individuals, a little more than a third of the cases.

Three of the patients who died, took tartarized antimony, and were no better on the following day. In one no evacuation was produced.

Thus out of twenty individuals, to whom emetic tartar was given in a dangerous state, three only died, which, it appears to me, can leave no doubt of the utility of this substance, in the treatment of pneumonia, particularly as these three persons were 60 or 70 years old.

M. Louis proceeds, in the same manner, to examine the effects of blisters; and concludes that they have no appreciable influence on pneumonia, any more than on pleurisy and pericarditis, occurring as idiopathic affections. The results of his researches he states to be:—

1. That bleeding is useful in pneumonia; that it abridges its duration; nevertheless that it has less influence than is commonly imagined; so that patients bled in the four first days of the disease recover four or five days sooner than those not bled till afterwards.

2. That pneumonia cannot be cut short by bleeding, at least not in the early stages; and if the contrary has been credited, it arises from having confounded this disease with another, or because in some rare cases the general symptoms diminish rapidly after a first blood-letting. But then the local symptoms, crepitation, and the dull sound, do not the less continue to gain ground.

3. That age exercises great influence on the duration of this disease, and on its fatal termination.

4. That tart. antim. in large doses, when bleeding has no influence, consequently, in dangerous cases, acts favourably, and seems to diminish the mortality.

We reserve our remarks on the treatment, as well as on the method and tables, for another number. All we have attempted here is, to lay this part of M. Louis's work fairly before the reader. The bleedings appear inefficient, yet let us bear in mind that no patient under forty years of age was lost, in the last series of cases.

It will be time enough for the misconductors of one of the Irish medical periodicals to talk about possessing the "hostility of the Editor of The Lancet" when they have got it,—a not very desirable nor a very probable event.

OPERATION OF LITHOTOMY IN INFANTS.—At a late meeting of the Society of Practical Medicine, M. GUERSENT gave an account of three operations for the stone, which he had just performed upon children. The first, an infant three years of age, had a small calculus at the extremity of the urethra; this was removed by a very small incision. The second, seven years and a half of age, presented for the last few months all the rational symptoms of the stone, which was moreover recognised by the sound; the stone seemed large. M. GUERSENT performed the bilateral operation; but this did not give sufficient room; he then changed the operation to the quadrilateral, and extracted a calculus fifteen lines in its largest, and twelve in its smallest diameter; the thickness eight lines; the child did well for three days, but died of peritonitis on the fifth. The third patient, eleven years of age, was operated on by the bilateral method; the stone in this case was encysted, and the operator was forced to remove some of the mucous membrane of the bladder with it; the little patient, however, got rapidly well.—*Gaz. des Hosp.*, No. 23.

HOUSE OF COMMONS,

March 4, 1835.

* * * * *

Mr. WAKLEY, seeing the right hon. baronet, the head of his Majesty's Ministers, in his place, said that he embraced the earliest opportunity of asking him,—Whether any new regulations had been framed by the *London College of Physicians*, at the suggestion or under the sanction of the Ministers of the crown, for admitting the graduates in medicine belonging to the Scotch and Irish universities, to the privileges of the Fellows of the College, on terms precisely similar to the mode of admitting graduates in medicine belonging to the Universities of Oxford and Cambridge.

(*From "The Times," March* 5.)—Sir ROBERT PEEL said, that he did not know whether the new regulations to which the hon. member referred were the new regulations by which it was proposed to admit Dissenters into the College of Physicians; but if they were, he (Sir R. Peel) was given to understand that those regulations had met with the approbation of the College. The state of the practice of the College was this:—In order to get a license to practise as a physician, an individual must have resided at an University for a certain number of years. What was now proposed was, to dispense altogether with the necessity of residence at the Universities in persons applying to become licentiates of the College of Physicians, instead of which residence and degrees, a certain form of examination, and attendance in medical schools, would be required. Persons passing this examination, and complying with the rules of attendance, would be qualified to become licentiates and fellows of the College, so that those individuals who might be educated at the Universities would have no preference over others who had attended the course of study referred to.

*** In reporting this statement, the Editor of the *Times* remarks, that he "does not exactly understand it," and for the following reasons, that "at present a doc-"tor's degree from any university, whe-"ther British or foreign,—the party hav-"ing resided in the university at which "he graduates for two years,—is a suffi-"cient qualification for a licentiate who "can pass the usual examination at the "College of Physicians. It is not neces-"sary that the candidate for a license "should be a graduate of either of the "English Universities, nor is there any "*law* of the College to exclude from fel-"lowships all but graduates of the En-"glish Universities, though the general "*practice* has undoubtedly been to elect "none others as fellows."

As it is not the practice in the House of Commons to make desultory questions, or answers to questions, the grounds of argument or discussion, Mr. WAKLEY abstained from noticing the errors into which the right hon. baronet had fallen with respect to the admission of graduates in medicine into the College of Physicians, more especially as the subject will come regularly under discussion in the course of the Session, long before which time the "new regulations" of the College will be laid on the table of the House of Commons.

SCARCITY OF SUBJECTS.

MEETING OF MEDICAL STUDENTS AT EDINBURGH.

A MEETING of the Medical Students of Edinburgh was held in the Great Room of the *Waterloo Hotel*, on February 7th, 1835, to petition the Legislature to make such alterations in the Anatomy Bill as should

amend its operation on behalf of those who are studying Medicine in that city. At two o'clock 700 students were present, Mr. VAUX in the chair.

The CHAIRMAN then addressed the meeting to the following effect:—Gentlemen,—I thank you most sincerely for the honour you have conferred upon me. It is with no ordinary feelings that I address you on the present occasion, because I was one of the first to rouse the students to a consideration of their present grievances.—Gentlemen, students have to contend with great difficulties in the prosecution of Medical science; of the value of our profession the public are fully aware, and the universal respect paid to medical men is sufficient evidence of the estimation in which they are held. It is not therefore of the public, but of the few, that we have to complain, and who, I am sorry to say, from their rank in life, are the very individuals whom we should expect to support the interests of a liberal profession. We meet here in consequence of the inefficient supply of subjects. Each school has held meetings to petition the local authorities, but no benefit has accrued from so doing; and although the session is passing fast away, there are two hundred anatomical students who have not yet been able to obtain parts for dissection—therefore it is thought best to lose no farther time, but petition Parliament at once for a redress of this grievance. (*Much applause.*)

Mr. BENNETT, moved the first resolution. He commenced by adverting to the existence of popular prejudices against the prosecution of anatomy, and contrasted it with the anxiety and demand, notwithstanding, to have great knowledge and talent on the part of medical men. Gentlemen (he continued), I consider that the public should be taught to regard the anatomy question as one of great importance to themselves; that the medical student does not study anatomy for his own pleasure; that he feels no delight in practising human dissection; but that he examines the structure of the dead, for the all-important purpose of removing diseases from the living. They should be made acquainted that the teachers of anatomy no longer carry on a traffic in human flesh, and that after the demands of science are satisfied, the scrutinized remains are deposited in the earth with the usual rites of Christian burial. The most powerful arguments cannot convince some minds, but the generality of the public are usually swayed by common sense, and instead of having a tide of popular feeling run against the schools, as some have supposed—in my opinion, a tide will be occasioned in our favour, which will bear us in a triumphant manner through this question. For the purpose of rendering the prosecution of anatomy legal (which, strange to say, it formerly was not), and with a view of protecting the public against the commission of the most horrid crimes, a bill was introduced into Parliament by Mr. Warburton, which purposed to secure facilities in dissection, and by lessening the expenses attending it, to remove the incentive which had led abandoned individuals to the perpetration of such enormities. This bill received the sanction of the Legislature on the 1st of August 1832. It abolished the trade of the resurrectionist, repealed the clause which made medical gentlemen the finishers of the law (by dissecting criminals), and rendered lawful the giving up, for anatomical investigation, the bodies of the unclaimed dead, holding forth the probability that a sufficient supply of dead bodies would be obtained to meet the wants of the various schools. But, Gentlemen, has the latter of these intentions been fulfilled, and if not, can any thing be done by Government to secure the means essential to the prosecution of medicine? As regards the first question, as far as this school is concerned, it has not operated in a manner that could be wished; and as regards the latter, your Committee are of opinion, that certain alterations in the clauses of this bill would remove all the disadvantages under which we labour. Under this persuasion the Committee have drawn up a series of resolutions, and knowing that the Medical School of this city stands so high in reputation that any recommendation from it might obtain the attention of the Legislature, they confidently anticipate, that if we unite to attain the objects therein explained, success will reward our exertions. On perusing the Anatomy Act there appears to me to be one omission of the utmost importance. While clause 7 enacts, that it shall be lawful for certain individuals having certain bodies in custody to permit their being given up for anatomical purposes, it makes it optional with them whether they shall be given up or not, and leaves the holders at perfect liberty to sell them for as much money as they may choose to demand, or dispose of them in a method that may best suit their interest. Owing to this omission the overseers of several parishes have refused to give up the dead bodies that are not claimed, and, regardless of the wants of science, and the demands of students, have buried those subjects which might have been made available to the interests of humanity. It is therefore incumbent upon us to point out to the

Government the necessity of removing all choice in those individuals concerning the disposal of their dead, so that when a person dies under the circumstances pointed out by the Act, it may be lawful for the lecturers to claim it for the purpose of dissection. I, of course, have only alluded to parochial authorities and governors of charities who are prevented from complying with the wishes of anatomists, merely by the vulgar prejudices which disgrace the age, and which any man of education should feel ashamed of entertaining. But it is my firm belief, that if these several custodiæ of unclaimed bodies would give them up for examination, we should obtain a sufficient supply; and, actuated by this consideration, the Committee, in drawing up the resolution which I have to propose, have suggested, that were it made incumbent on those custodiæ to give them up, and to send a notice to the Inspector of Anatomy that such a body lies in their possession for removal—much would be done towards removing that obstacle which at present renders the study of anatomy almost impossible. We now come forward, not to benefit individual schools, to the detriment of others, but to produce good for the whole body of students in this city; and I therefore sincerely hope, that you will unanimously adopt the following resolution:—"That this meeting considers the present Anatomy Bill defective, inasmuch as it places no restraint on parochial authorities regarding the disposal of their unclaimed dead, and leaves them quite at liberty either to dispose of them as may best serve their own interest, or bury them if they chose to do so; and suggests that it should be made imperative on all parochial authorities, superintendents of hospitals, infirmaries, charities, &c. to forward a notice to the Inspector of Anatomy of their district, whenever a dead body lies in their possession under such circumstances as are pointed out by the Act." (*Long-continued applause.*)

Mr. Forbes seconded the resolution, which was adopted unanimously.

Mr. Hunter proposed the second resolution, "That this meeting deem it most unjust, that there should still exist an unequal distribution of subjects among the students attending the legally recognised classes of this town; and, moreover, urge the adoption of the principle acted upon in London and elsewhere, that subjects should be distributed according to the number of students attending each class." — This resolution embodies but one fact, and that is, that there exists in this city a partial distribution of subjects. Now, gentlemen, partiality in this case is a synonymous term for corruption (*applause*), because it supports certain individuals to the prejudice of others, without considering their respective claims to patronage. From this flow innumerable evils, and your own experience will attest the truth of the statement that the present state of things decidedly thwarts the student in his course of study. (*Applause.*) The lecturers themselves, whose indefatigable industry and mental exertions have raised them to a proud pre-eminence in their profession, have their energies paralyzed by the present state of things. Neither good nor advantage can accrue from corruption; wherever it exists, the avenue to knowledge is blocked up, and if you wish to clear away the rubbish, you must concentrate your energies for its overthrow. (*Great cheering.*)

Mr. Fidler seconded the motion of Mr. Hunter, and said, it is evident, gentlemen, that the grievance alluded to in this resolution, though not expressly mentioned by the gentleman who moved it, is, that the whole of the unclaimed bodies derived from the Infirmary are taken to the University Anatomical Rooms; and as the majority, indeed two-thirds, of the medical students of Edinburgh who subscribe to the Infirmary, belong to the legally recognised private classes, they have a rightful claim to at least an equal distribution with the University students. I am not aware that the University contributes to the support of the Infirmary through any other means than by the fees of the students and the duties performed by some of its professors, who are, I believe, remunerated in some way, independent of the honour of their offices. In making these remarks I am far from wishing to attach any opprobrium to the professors of the University; on the contrary, I commend them for their zeal in securing every possible support for their classes; but at the same time I applaud all the efforts you can make in the support of your classes, and advise you to take those measures which you are now called forward to adopt. I am not afraid of expressing my sentiments freely on the subject; for I am as independent of the professors as they are of me. If I want to attend a class, I, like yourselves, must loose my purse strings; consequently, I consider the obligation reciprocal. (The resolution was carried unanimously.)

Dr. Inglis.—Gentlemen, we have met with one common object in view, viz., the furtherance of medical science by the promotion of anatomy. After the Anatomy Bill had passed into a law, and its imperfections were dawning on the profession, a question arose regarding the definition

of the word "district," which being referred to the late Secretary of State, he gave it as his opinion that dead bodies could not be removed from neighbouring villages to the nearest anatomical school, but that that school must remain contented with the produce of its own immediate vicinity. But in this Act no such restriction exists; and, indeed, it is altogether contrary to its spirit. A proposal was made in your committee, to petition Government to allow the importation of subjects from foreign countries; but when we consider that the transportation of unclaimed bodies from one village to another in our country is denied us, how can we expect to be listened to should we desire an importation which must be followed by a transportation of the bodies from the ports to the schools? There are many towns and villages within twenty miles of Edinburgh, where institutions exist to which numbers of the friendless poor resort, die, and, at the expense of the village, are buried. Now, were the parochial officers of such places, under certain penalties, to communicate information of the death of those individuals to the Inspector of the nearest anatomical school, he could inform the teacher whose turn it was to receive the body, who would get it conveyed to his rooms with comparatively little expense. If, however, within four days that teacher neglected to send for the subject, the officer might be authorized to bury it on the fifth. The resolution I have to bring before you is this,—"That the restrictions imposed, and the objections made by the late Secretary of State, respecting the removal of dead bodies from one part of the United Kingdom to another, are not authorized by any part of the Anatomy Act, and are contrary to the spirit of the Act." (*Applause.*)

Mr. W. Brown seconded the motion, which was carried unanimously.

Mr. Skae.—You all know *now*, gentlemen, the *place where* we mean to seek redress. The student may cry in vain to the assistant, or the lecturer, or the inspector, or the manager, or the magistrate, for subjects for dissection. One and all of them have said, "The fault is not in us;" they have done all in their power to facilitate the objects of the Anatomy Bill; at least *they say so* (and who should know better than themselves?), and yet our grievances remain. If the fault lies in the Anatomy Act, there is but one quarter where that Act can be amended, and there we propose to go. If the fault lies with the executors of the bill, let Parliament set them right. I conclude by moving,—"That the Committee be empowered to embody the Resolutions already adopted by this meeting, in a petition to both Houses of Parliament, praying them to take the subject into consideration, and to adopt these, or such other measures, as they shall deem expedient, for redressing the grievances complained of." (*Applause.*)

Mr. A. Brown seconded the motion, which was carried unanimously.

Mr. Forbes moved, "That the petition be presented in the House of Commons by Mr. Warburton, and in the House of Lords by the Duke of Buccleugh." (*Great applause.*) No political causes have actuated the Committee in this selection. Mr. Warburton is the advocate of medical reform, therefore there can be no Member of Parliament better fitted to present your petition; and though the Act against which our petition is mainly directed, emanated from Mr. Warburton himself, yet as his aim is to correct medical abuses, and further medical science, we may rest assured that he will be the first man to rejoice in the exposure of any defects therein. The Duke of Buccleugh is the nobleman who is most nearly connected with Edinburgh and its interests. (*Applause.*)

Mr. Moorhouse seconded the motion, and said that in consequence of Mr. Warburton being chairman of the Committee which had been sitting for so long a time to improve the state of medical education, he could introduce the petition to the notice of the House with great effect. (*The resolution was unanimously adopted.*)

Mr. Finley.—As it must be a considerable time before the petition can come before Parliament, it might do good, in the mean time, to apply to the Secretary of State for the Home Department, to use his influence with the parochial authorities here, to give up their unclaimed dead. The students of London, who laboured under similar grievances, did so with success. The whole of the unclaimed bodies dying in *St. Thomas's Hospital* were given to the anatomical school connected with that institution, but by the interference of the Home Secretary they are now appropriated to other schools.* I am sorry that some of the parochial authorities of Edinburgh have the interest of science so little at heart; they ought to have been the

* This is an error, and we only find room to insert the statement in our abridgment of the report, in order that the reasons used for the adoption of the resolutions may all of them find their way before the public. No subject has ever gone from the wards of *St. Thomas's Hospital*, under the sanction of the Home Secretary, to the dissecting-room of any school outside the walls of the hospital; but bodies carried from the wards into the dissecting-room of the *St. Thomas's Hospital School* have been reckoned, in the distribution, by the Inspector of Anatomy, as though they had been received from one of the workhouses.—Ed. L.

very first individuals to give up the unclaimed bodies, considering the horrid atrocities once committed in this very city. I beg to move, "That in the name of this meeting, the Committee be empowered to draw up a memorial for the purpose of forwarding to the Home Secretary, humbly requesting him to use his influence with the parochial authorities of Edinburgh, and that through his power we may receive some advantage before the petition can obtain the attention of Parliament."

Mr. YARNOLD seconded the motion, and trusted it would lead to inquiry respecting the *unequal* distribution, as well as the insufficient supply. (*Unanimously carried.*)

A GENTLEMAN then moved,—"That the Members for this City be memorialized, requesting them to support the prayer of the petition in the House of Commons." Seconded by MR. THOMPSON, and agreed to.

"MR. GRANT then moved, seconded by MR. BENNETT,—'That Mr. Wakley be also memorialized, requesting him to support the prayer of the petition.'—This was opposed by Mr. Forbes, on the ground that it was unnecessary. Mr. Bennett, however, in reply, fully convinced the meeting of the propriety of adopting the resolution, and strongly eulogized Mr. Wakley as a medical reformer and a corrector of abuses. After some little discussion, a show of hands was demanded by the Chairman, when the motion was carried by a large majority."

MR. BROWN moved, and MR. WILSTROP seconded,—"That the committee be empowered by this meeting, to inquire into the purposes to which the 5*l.* paid for each subject is applied, and report the result of such inquiry at the first future meeting."

MR. YARNOLD,—I would strongly urge the propriety of this investigation, since it is evidently intended in the 13th clause of the Anatomy Act, that only such expenses as are dependent on the removal of subjects from the places in which they die, to the dissecting-room, and from thence to the burial-ground, and the burial of the same, should be defrayed by the parties dissecting the body. Now, the coffin, on an average, never costs more than 10s.; the conveyance to the burial-ground, 4s.; and the burial-ground dues, 4s. 6d.; and now there is only the conveyance to the examination rooms unaccounted for; and if you put this at 5s. still that only makes 1*l.* 3s. 6d.—what becomes of the 4*l.* 1s. 6d.? Suppose we compute the number of *anatomical* students of Edinburgh at 600 only, and each is able to go once over a body during the session, paying 5*l.* for the same; the fund raised by this would amount to 3000*l.*, while the cost ought not to be more than 1000*l.* at most. I am perfectly aware, Mr. Chairman, that there is an association of lecturers, whether in connexion with or independent of the parochial authorities I know not, and that they keep up an *establishment* for receiving and distributing subjects, under the plea of rendering the supply more constant and secure; but this establishment stands opposed to the very object which it has in view. Last week I COULD HAVE PROCURED OF A MAN THE DISSECTION OF A DEAD BODY FOR TEN SHILLINGS; but on applying, I was told that no lecturer *dared* to take in any subject till it had gone to the *establishment*, for it was against the laws of the association, but that there it would be purchased by the clerk who was appointed by the lecturers for that purpose. IN OTHER WORDS, IT MUST GO IN AND GET THE EMBARGO OF 4*l.* 10s. LAID ON IT BEFORE WE COULD DISSECT IT. At any rate, this is the idea it suggested to me. I think now, gentlemen, the propriety of investigation cannot be questioned for a moment. (*After some little discussion the resolution was adopted.*)

MR. POTTS then came forward to propose as a resolution—"That this meeting greatly deplore the presence of any anatomical lecturer among the Managers of the Royal Infirmary."

MR. HUNTER opposed it on the ground that the resolution he had brought forward, guarded against any influence exercised by the Managers of that Institution.

MR. POTTS, in answer to the question, what use such a resolution could be of, said, "I want this meeting to throw all its moral influence over the Managers of the Royal Infirmary." (*Great laughter.*) *The motion was ultimately rejected.*

A GENTLEMAN then observed that he understood that this was a meeting of the private schools, and said that Dr. Monro's class had no reason to complain; *they had plenty of subjects.*

MR. BENNETT said that the petition would be sent to Parliament in the name of all the Medical Students of this City, as the meeting was called as publicly as possible. Moreover, he considered that Dr. Monro's pupils would support the petition, as they were for the most part sufficiently liberal to see the necessity of an equal distribution of subjects

A vote of thanks to the Committee, for which MR. WILSTROP returned thanks, and to MR. VAUX for his able conduct in the chair, were carried amidst great applause, and the meeting then separated.

Our abridgment has been made from a printed circular forwarded to the Editor,

by Mr. SKAE, the Secretary to the Committee. The following is a copy of the petition:—

"*Unto the Honourable the Members of the* HOUSE OF COMMONS, *in Parliament assembled,*—

"THE HUMBLE PETITION of the undersigned *Students of Anatomy* attending the *Medical Schools of Edinburgh*, adopted at a general meeting held in the *Waterloo Rooms* of that city on the 7th of February, 1835,

"SHOWETH,—That although an Act of Parliament was passed in the 2nd year of his present Majesty's reign, cap. 75, proceeding on the preamble, that "a knowledge of the causes and nature of sundry diseases which affect the body, and of the best methods of treating and curing such diseases, and of healing and repairing divers wounds and injuries to which the human frame is liable, cannot be attained without the aid of anatomical examination; And whereas the legal supply of human bodies for such anatomical examination is insufficient fully to provide the means of such knowledge," and although various provisions were in that statute made for remedying this evil, yet your petitioners still continue to labour under many grievous disadvantages in the prosecution of that branch of knowledge in the schools of this city, and feel themselves called upon to state those grievances to Parliament, in the hope that if possible some more effectual remedy may be provided.

"That your petitioners complain that the supply of subjects for anatomical investigation is quite inadequate to enable the students to acquire a competent knowledge of anatomy within the usual term of study, and is much less than was anticipated, from the operation of the aforesaid statute,—circumstances which they do not hesitate to ascribe to the apathy or prejudices of some parochial authorities, and to the direct hostility of others, and that consequently the opportunities of studying anatomy are very much diminished, while the expenses attending the study are proportionably increased.

"That your petitioners complain that the said existing statute places no restraint on parochial authorities regarding the disposal of their unclaimed dead, but leaves them at liberty to dispose of them as may best suit their own interest or to bury them if they choose so to do; and that, consequently, many dead bodies are either privately sold or buried, which might have been otherwise rendered subservient to the uses of the anatomical schools without injury to any interests or feelings. And they further humbly suggest that much benefit would accrue to the study of medicine, and to medical science in general, were it rendered imperative on all parochial authorities, superintendents of hospitals, infirmaries, charities, &c., to forward a notice to the Inspector of Anatomy for their district, whenever a dead body lies in their possession under such circumstances as are pointed out by the Act.

"That your petitioners deem it most unjust that there should still exist an unequal and otherwise partial distribution of subjects among the different legally-authorized classes of this city; they consider that each school is entitled to an equal share of the benefits derived from the statute, without any reference to the situation or influence of individual lecturers, and they humbly suggest the propriety of adopting the principle acted upon in London, and elsewhere, that subjects should be distributed according to the number of students attending each class.

"That your petitioners are of opinion that the restrictions imposed and the objections made by the late Secretary of State respecting the removal of dead bodies from one part of the United Kingdom to another, are not authorized by any part of the statute, and are contrary to the spirit of that Act: And that, in consequence, they are deprived of many unclaimed bodies which ought to be otherwise applicable to the purposes of dissection. Indeed they receive none, except such as are procured in the city itself or in its immediate vicinity; that this inconvenience falls peculiarly hard on the anatomical schools of this city, where the pauper population is comparatively smaller than in larger and manufacturing towns.

"Your petitioners therefore pray that your Honourable House may be pleased to take the subject into consideration, and to adopt the measures suggested, or such others as shall be deemed proper, for attaining the objects for which the said Act was passed, and for securing to your petitioners such a supply of unclaimed dead as shall, by facilitating the study of anatomy, be subservient to the local interests of this place as a school of medicine, and more particularly promote the interests of the medical science itself, and so confer a valuable boon on the people at large.

"And your petitioners will ever pray," &c.

Mr. Cowan's letter was received, and will be noticed, but, like many other communications, must wait another week.